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THE SEDENTARY HORIZON OF THE NORTHERN PLAINS

DONALD J. LEHMER

THROUGHOUT THE PERIOD of the human occupation of North America, the Great Plains region has made numerous and rigorous demands of any group attempting to settle there. The Plains environment has been, and is today, one which can be coped with only by a people capable of adapting their culture to the peculiar conditions found in the area. Webb's classic study[1] has summarized the changes which accompanied the White settlement, and the available information on the archaeology, history, and ethnology of the region indicates that the various aboriginal inhabitants were faced with the same necessity of adapting their cultures to the Plains environment. The same data show that the problems were met in different ways at different times—a situation which led to the development of a sequence of cultural configurations which, in Kroeber's terms,[2] might be called "culture climaxes." Within the Northern Plains, the several climaxes seem to have differed in intensity, to have centered in different parts of the area, and to have been characterized by a particular adaptation of culture to its environment. Each climax appears to have lasted over a definable period of time, usually with a minimum of overlap on its predecessor or successor. Because of this, it seems possible to divide the prehistory of the area into a series of "time horizons," each horizon being a period distinguished by the dominance of a particular culture climax.

For the purpose of this paper, the Northern Plains are considered to include roughly the northern half of the interior American grassland, and to be divisable into three subareas: the Central Plains, the Middle Missouri, and the Northwestern Plains. The Central Plains lie between the Smoky Hill and Kansas rivers of

1 Webb, *The Great Plains*, 1936.
2 Kroeber, *Cultural and Natural Areas*, 1939.

Kansas and the Niobrara River of northern Nebraska. The Middle Missouri region includes the eastern Dakotas and the valley of the Missouri River from the mouth of the Niobrara to the mouth of the Little Missouri. The Northwestern Plains extend from just east of the 102nd meridian in Kansas and Nebraska and from the Missouri valley in the Dakotas westward to the foothills of the Rockies. It would seem that the entire region can profitably be considered as a unit by the anthropologist because of the many indications of cultural interaction between the subareas, and because the culture history of the area as a whole appears to differ from that of the Mississippi drainage to the east, the Intermontane (Great Basin) area to the west, and from the Southern Plains.

Environmentally, much of the Northern Plains is a region of east-sloping tabular surface broken by some local relief and traversed by the broad valleys of east-flowing rivers. The Northwestern Plains is primarily an arid to semi-arid grassland, a vast pasture capable of supporting hundreds of thousands of herbiverous animals. The inter-stream areas of the Middle Missouri and Central Plains sections are also grassland, but the heavily wooded stream valleys provide a second environmental situation. This dual environment of the eastern part of the Northern Plains appears in such vegetation classifications as the Shantz-Zon map which shows most of the area as grassland, but which includes the stream valleys with the Oak-Hickory division of the Southern Hardwood Forest. The Northern Plains as a whole is an area of hot summers, cold winters, persistent winds, and of unpredictable droughts. Despite these disadvantages, it is a land which offers rich rewards to any group capable of adapting its culture to the local conditions.

Environmental changes in the past include those during the late Pleistocene (Wisconsin) glacial advances, which must have caused major alterations in the stream courses, climate, and vegetation; the post-glacial Altithermal period when temperatures were considerably higher than they are today, and which was also probably a very dry period in the Northern Plains; and various droughts of differing intensity since the end of Altithermal times.

Within these settings the cultures characterizing the several time horizons existed. At present it seems possible to distinguish five such horizons prior to the period of intensive White settlement. The oldest, the *Early Hunting Horizon,* is the period of the pre-Altithermal cultures which appear to have been primarily dependent on big game hunting in the grasslands of the Northwestern Plains. The various manifestations are the Llano, Folsom, Frontier, and Angostura complexes and the Scottsbluff, Plainview, Agate Basin, and Eden assemblages. The various artifact complexes include a number of distinctive projectile point types, and a variety of knives, scrapers, and choppers, assemblages which indicate a concentra-

tion on big game hunting and the preparation of the kill. The generally excellent workmanship of the individual artifacts shows a relatively high technological development which may well reflect a food surplus due to an ample game supply. The complexes of the post-Altithermal *Foraging Horizon,* known from a series of sites yielding materials comparable to those from Signal Butte levels I-A, I-C,

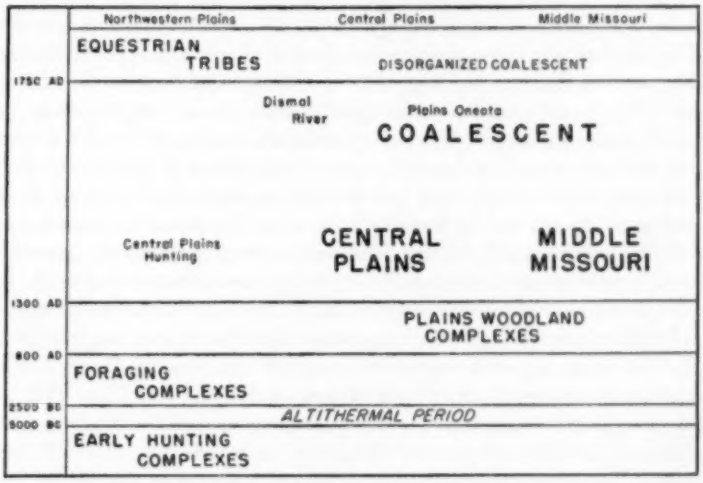

FIG. 1. The Time Horizons of the Northern Plains

and II, again seem to have centered in the Northwestern Plains and to represent a hunting and gathering economy. Sites representing this horizon are relatively scarce, and the technological level of the characteristic artifacts is generally poorer than that of the preceding period, facts which may indicate a borderline economy due to the depletion of the native game animals by drought conditions during Altithermal times. The culture climax for the following *Plains Woodland Horizon* centered in the Middle Missouri and Central Plains areas. It is typified by the materials assigned to the Valley, Keith, Sterns Creek, and Loseke Creek Focci, but also includes variants such as the Hopewellian manifestations in the vicinity of Kansas City and a western form known from Lens D at Ash Hollow Cave and the Kelso site. The majority of the Woodland peoples seem to have depended somewhat on bison and other grassland game animals, but their economy appears to have been primarily based on hunting, gathering, and some farming in the wooded

stream valleys, areas which reproduced in miniature the environment of the classic Woodland cultures of the eastern United States. The climax for the *Sedentary Horizon,* to be discussed here, also centered in the eastern part of the Northern Plains. During the succeeding *Equestrian Horizon,* which lasted until the White settlement, the culture climax shifted back to the Northwestern Plains. The pattern was that of the classic horse tribes of historic times; the economy based almost exclusively on bison hunting by mounted men.

The development of an accurate and detailed chronology is one of the most pressing needs in Plains archaeology. However, it is possible to make tentative estimates of the age and duration of the various time horizons recognized here. Relative dates have been arrived at from archaeological stratigraphy and the association of artifact materials with extinct faunal forms. Dates in terms of the Christian calendar have been provided by a few radiocarbon samples, limited dendrochronological studies, and by historical records for the period subsequent to the first White penetration of the area. The horizon dates indicated in Figure 1 are admittedly estimates, estimates which seem to be reasonably accurate on the basis of present data, but which may change radically in the light of new evidence.

The Sedentary Horizon, which appears to have lasted from roughly 1300 to 1750 AD, was the period during which the culture climax of the Northern Plains centered in the villages of the Middle Missouri and the Central Plains. The little information on the archaeological remains in Montana and Wyoming of this period suggests a carry-over there of complexes similar to those of the Foraging Horizon.[3] There seems to have been a specialized extension of the Central Plains village groups into western Nebraska and eastern Colorado. The village cultures all show the same basic orientation toward the Plains environment, an orientation which is strikingly different from that of their predecessors and successors. However, there is evidence of numerous detailed differences between individual village complexes, and of a definable series of culture changes within the period.

During the early part of the Sedentary Horizon, significant differences between the basic complexes of the Middle Missouri subarea and of the Central Plains indicate the existence of two comparable but distinct cultural traditions. Sites in the Middle Missouri Tradition include those assigned to the "Archaic Mandan" and "Middle Mandan,"[4] the three early stages of the Fort Pierre Branch,[5] and the Over Focus.[6] The sites themselves are located in the Missouri

3 Mulloy, *The Northern Plains,* 1952.
4 Will and Hecker, *The Missouri Valley Culture,* 1944.
5 Lehmer, *The Fort Pierre Branch,* 1952; *The Oahe Dam Area,* 1954.
6 Hurt, *The Swanson Site,* 1951.

valley in the Dakotas and extend well into southeastern South Dakota. The Central Plains sites include those assigned to the Upper Republican and Nebraska Aspects, and are found from western Iowa through eastern and southern Nebraska into northern Kansas.

The northern villages are characterized by long-rectangular houses with fairly deep pits. Entrances are in the end, and usually consist of an ante-chamber outside the house pit and an earthen step inside. Firepits are offset toward the entrance end of the floor, and the primary roof supports appear to have been set in single or double rows along the long axis of the pit. The Central Plains houses are roughly square with rounded corners, have entrance passages leading out to one side, central fire-pits, and usually four single or multiple primary roof supports set in a square around the fire pit. The northern houses were arranged in fairly regular rows, and a number of the settlements were protected by fortification ditches. There is no apparent plan to the location of the houses in the southern villages, and there is no evidence that the settlements were fortified.

The contrasts between house types and village plans constitute one of the most striking differences between the Central Plains and Middle Missouri Traditions. There are also important differences between the artifact complexes. The pottery of the Upper Republican and Nebraska Aspects is characterized by cord-roughened bodies with flared or collared rims with tool- or finger-impressed decoration. Cord-impressed designs are lacking except in the Sweetwater Focus of central Nebraska. The Middle Missouri pottery is sometimes decorated with tool or finger impressions, but a large proportion of the rims have cord-impressed decoration. Some of the Middle Missouri rims are flared, like those of the Central Plains, but most of the vessels have S-rims in contrast to the collared rims of the south. Pottery from the southern part of the Middle Missouri area has plain or cord-roughened bodies, like the Central Plains wares. But Middle Missouri pottery from north of Cheyenne River in South Dakota is characterized by simple stamped rather than cord-roughened bodies. Stone and bone artifacts which are common in sites representing the Central Plains Tradition, but are rare or absent in the north, include arrow points with base notches or with more than one pair of side notches, beveled diamond-shaped knives, chipped celts, elbow pipes of stone or clay, effigy pipes, figurines, bone tubes, awls made by splitting a light bone through the head and shaft, and the perforated bone or antler pieces which are generally called arrow shaft wrenches. Characteristic Middle Missouri artifacts which do not appear to have been typical of the Central Plains Tradition include long narrow flaked knives with one straight and one convex edge, grooved mauls, broad flat awls split from bison ribs, and long flat segments of split bison rib with polished

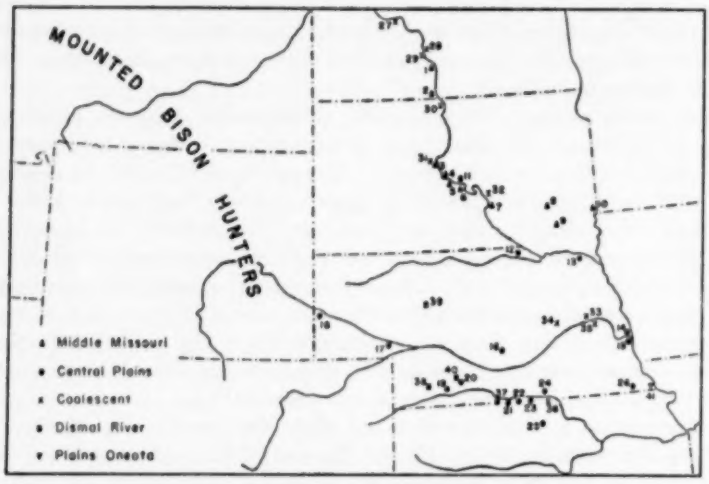

FIG. 2. Sites of the Sedentary Horizon of the Northern Plains.

1. Huff–Will and Hecker, 1944.
2. Ft Yates–Hewes, 1949a and 1949b.
3. Cheyenne River–excavated by Wedel, 1951.
4. Thomas Riggs–Meleen, 1949b; Hurt, 1953.
5. Dodd, Phillips Ranch–Lehmer, 1954.
   Buffalo Pasture–Strong, 1940; also excavated by Fenenga, 1952.
6. Sommers–Meleen, 1949a; Hurt, 1951a.
7. Swanson–Hurt, 1951b.
8. Mitchell–Meleen, 1938.
9. Twelve Mile Creek–Hurt, 1951b, p. 71.
10. Brandon–Over and Meleen, 1941.
11. Arzberger–Strong, 1940.
12. Lynch–Wedel, 1940.
13. Schulte, Radke, and Wiseman–Cooper, 1936.
14. Gates–Strong, 1935.
15. Behrnes, Sheldon, and Woolsey–Gilmore, 1936.
    Rock Bluffs–Strong, 1935.
16. Sweetwater–Strong, 1935; Champe, 1936.
17. Ash Hollow Cave—Champe, 1946.
18. Signal Butte–Strong, 1935.
19. Red Willow 1–Wedel, 1935.
20. Medicine Creek–Kivett, 1949a.
21. Holdredge 3 and 4–Wedel, 1935.
22. Red Cloud 2 and 3–Wedel, 1935.
23. Lost Creek–Strong, 1935.
24. Red Cloud 1 and Superior 2–Wedel, 1935.
25. Minneapolis 1–Wedel, 1935.
26. Table Rock–Gilmore, 1936.
27. Rock Village–excavated by Burcaw, 1950, and Hartle, 1951.
28. Double Ditch–Will and Spinden, 1906.
29. Ft Abraham Lincoln–Strong, 1940.
30. Leavenworth–Strong, 1940.
31. Meyer–Hoard, 1949.
32. Talking Crow–Smith, 1951.
33. Gray-Wolfe–Dunlevy, 1936.
34. Burkett–Dunlevy, 1936.
35. Linwood–Wedel, 1936.
36. Hill–Wedel, 1936.
37. White Cat–Champe, 1949.
38. Lovitt–Hill and Metcalf, 1942.
39. Dismal River 1 and 3–Strong, 1935.
40. Medicine Creek 5–Wedel, 1935.
41. Leary–Hill and Wedel, 1936.

rounded ends, pieces which are identical with the quill flatteners of historic times. Snub-nosed end scrapers are characteristic of both traditions, but those in the north tend to be small and neatly made by pressure flaking the entire convex surface, whereas the southern variety is more commonly large with convex surfaces formed by removing two or three percussion flakes parallel to the long axis.

Charred vegetal remains and the common occurrence of scapula hoes point to a developed horticulture in both areas, and the numerous cylindrical and undercut cache pits in and between the houses were probably used in part for storing surplus crops. Occasional fish bones and bone hooks indicate fishing in both areas. Freshwater mussel shells occur in nearly all of the early village sites, but they appear to be much more common in the Central Plains. Both the Middle Missouri and Central Plains people seem to have relied heavily on hunting as well as upon gardening, since the villages of both areas contain enormous quantities of animal bone. However, the few data available on the frequency of different kinds of bone indicate a marked difference in hunting and butchering patterns. The Middle Missouri sites probably contain more bone per cubic yard of refuse, with bison usually amounting to roughly ninety percent of the total sample. Thus it would appear that many of the bison used by the Middle Missouri people were butchered in the villages, although it is impossible to know how many of these animals were killed nearby and how many cascasses were dragged from the river during the spring thaw. Bison bone is generally much less common in Upper Republican and Nebraska Aspect sites, sometimes constituting less than twenty percent of the total animal bone.

The relative scarcity of bison bone in the villages of the Central Plains Tradition might indicate a greater dependence on deer and antelope. However, there is a growing body of evidence that the scarcity of bison bone is due to a particular hunting pattern. A number of sites in western Nebraska and eastern Colorado yield pottery and other artifacts of types which are characteristic of the Upper Republican villages in central Nebraska.[7] However, the western sites appear to lack the distinctive Upper Republican earth lodges, gardening implements, and heavy wood-working tools. On the basis of the available data, the trait assemblages from the western sites represent part of the Upper Republican complex but lack those features which associate with horticultural villages. Because of this, it

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7 Signal Butte III: Strong, *An Introduction to Nebraska Archeology*, 1935.
The Dalton Rock Shelters: Bell and Cape, *Rock Shelters of Western Nebraska*, 1936.
Ash Hollow Cave: Champe, *Ash Hollow Cave*, 1946.
Sites of the Buick Focus found near Limon, Colorado and reported to the 10th Plains Archaeological Conference by Arnold M. Withers in 1952.

seems possible that these sites were seasonal camps established by bison-hunting parties of Upper Republican people, camps which served as bases to which the game was brought, and where the women of the group dressed the hides, dried the meat, and possibly made it into pemmican. If this was the case, only the usable parts of the carcass such as meat, hides, and bones to be made into tools would have been carried back to the village. Thus, it seems likely that the Upper Republican people relied as heavily on bison as the Middle Missouri groups, and that the difference in the proportion of bison bone in the village refuse in the two areas is due to a difference in hunting and butchering patterns.

During historic times, it was common practice for the able-bodied men and women of most of the Plains village tribes to leave the settlements for more or less extended bison-hunting trips. It has been suggested that this was largely a response to the introduction of the horse. However, the evidence from the High Plains sites which yield Upper Republican artifacts would seem to indicate that such a pattern existed well back in prehistoric times.

The close of the early part of the Sedentary Horizon seems to have been marked by the abandonment of most of the Upper Republican sites under pressure of a severe drought. Kivett[8] and Wedel[9] have pointed out that many of the known Upper Republican sites are blanketed with a layer of sterile loess, an overburden which does not occur at Nebraska Aspect and the later Lower Loup sites. It seems highly probable that the loess blanket was deposited during a drought which was severe enough to destroy much of the grass cover in the area, a supposition which is borne out by the available tree-ring evidence. The artifacts from lens B in Ash Hollow Cave in western Nebraska were predominately Upper Republican types. Tree-ring dates obtained from that lens ranged from 1398 to 1517 AD,[10] which would seem to indicate that the Upper Republican Aspect was in existence prior to and during the first half of the 16th century

Weakley's studies of climatic cycles in the Central Plains have demonstrated the recurrence of drought periods, the longest of which lasted from 1539 to 1564 AD, and he has suggested that much of the native grass cover was destroyed at that time.[11] The dating of at least one Upper Republican site during the early part of the 16th century, the evidence of a protracted drought during the middle of that century, and the consistent blanketing of Upper Republican sites with

8 Kivett, *Archaeology and Climatic Implications*, 1950.
9 Wedel, *Environment and Subsistence Economics*, 1941.
10 Champe, *Ash Hollow Cave*, 1946.
11 Weakly, *Dendrochronology and Climatic Implications*, 1950.

sterile loess, combine to suggest that the Upper Republican occupation of the Central Plains was terminated by the drought of 1539-1564 AD.[12]

The Missouri River valley in South Dakota probably served as a refuge area for at least some of the emigrants from the drought-stricken Central Plains. In contrast to the rivers of Nebraska and northern Kansas, which are mainly of local origin, the Missouri derives a large part of its flow from the Rockies and hence would have been relatively unaffected by drought conditions in the plains. The Arzberger site, some seven miles south of Pierre, South Dakota, indicates that at least some Central Plains people settled in the Middle Missouri area. Strong's description of the site indicates that it is basically in the Central Plains Tradition, but with a definite admixture of Middle Missouri traits.[13] Thus, Arzberger would appear to represent a colony of Central Plains people who had borrowed a number of traits from their Middle Missouri neighbors. The earliest component at the Talking Crow site near Chamberlain, South Dakota,[14] also appears to be characterized by a dominance of Central Plains traits, but it too shows a strong Middle Missouri admixture.

These two instances provide concrete evidence of an influx of Central Plains people into the Middle Missouri area. They also serve to demonstrate that there was a considerable trait interchange between the immigrant and the native populations. This interweaving of the Central Plains and Middle Missouri fabrics appears to be responsible for the basic similarity of the later villages of both the Middle Missouri and Central Plains subareas, villages which appear to represent what might be called a Coalescent Tradition.

The coalescense of Middle Missouri and Central Plains traits seems to have taken place in the southern part of the Middle Missouri area. The new complex presumably spread upriver from there, and also back into the Central Plains when the area was reoccupied. The various Coalescent groups appear to have depended on a combination of stream bottom gardening and grassland hunting, like the Central Plains and Middle Missouri peoples. All of the Coalescent sites are characterized by circular earth lodges with entrance passages and central firepits.

12 This suggestion throws an interesting sidelight on the identity of the settlements of Harahey which were reported to Coronado by the "Quivirans" in 1541. Wedel (*Culture Chronology in the Central Great Plains*, 1947) has suggested that Harahey was the Lower Loup occupation of central Nebraska. The tree-ring data suggest, however, that the Upper Republican occupation of the area lasted until about the time of Coronado's expedition to Kansas. Thus the Harahey which was reported to the north of Quivira may well have been Upper Republican.

13 Strong, *The Northern Great Plains*, 1940, pp. 382-383.

14 C. S. Smith, personal communication.

The great majority of them have four single or multiple primary roof supports set in a square around the firepit. This basic uniformity of house type is one of the most striking features of the late sites of the Northern Plains. The superstructures must have been nearly identical with the Upper Republican and Nebraska houses, and it seems highly probable that the four-post circular house of the Coalescent Tradition is a direct outgrowth of the four-post square house of the Central Plains Tradition. Houses in the Coalescent villages are irregularly placed like those in the Central Plains sites. The early Coalescent sites seem to have been unfortified, while the latest ones were generally protected by encircling ditches and palisades or sod embankments. The use of fortification ditches is a trait common to both the late Coalescent sites and a number of the villages of the Middle Missouri Tradition.

Coalescent pottery shows a great variation in rim form and decoration. The textured bodies are uniformly simple stamped, a trait which almost certainly derives from the Middle Missouri Tradition. Non-pottery artifacts which carry over from Middle Missouri into the Coalescent sites include grooved mauls and quill flatteners. Central Plains carry-overs include elbow pipes, arrow shaft wrenches, and bone tubes. Coalescent traits which do not appear to have been characteristic of either of the earlier traditions include handles on pottery, fleshers made by cutting diagonally through the shaft of a bison metatarsal and leaving the tarsals attached by sinews to serve as a handle, L-shaped scraper hafts of elk antler, tenoned or socketed bone projectile points, and the common use of catlinite. The Coalescent sites show some regional variations. The greatest differences lie between the northernmost and the southernmost sites, and appear to be mainly in the nature of more or less mutually exclusive carry-overs of Middle Missouri and Central Plains traits. For example, the beveled, diamond-shaped Central Plains knife is common in the Lower Loup sites of the south, whereas the long, asymmetrical Middle Missouri knife is the common type in the late sites in North Dakota. The regional difference is particularly striking in the rim form and decoration of the pottery. Vessels from the Coalescent sites in North Dakota show a number of close similarities to the pottery of the earlier Middle Missouri sites in the region, and appear to represent a direct survival of the earlier ceramic tradition. The Lower Loup peoples of Nebraska seem to have avoided the use of cord-impressed decoration like their Central Plains predecessors, although many of the Lower Loup rim forms appear to be innovations in the Central Plains.

Despite this tendency to a certain polarity in the survival of Central Plains and Middle Missouri traits, the Coalescent sites show an undeniable basic similarity

which contrasts sharply with the regional differences between the Central Plains and Middle Missouri Traditions of the early part of the Sedentary Horizon.

The history of the spread of the Coalescent Tradition remains to be worked out in detail. Coalescent sites are found throughout the Middle Missouri and part of the Central Plains area. They include the historic Hidatsa, Mandan, Arikara, and Pawnee villages, together with the proto-historic and prehistoric sites assigned to the "Heart River Mandan,"[15] the Stanley and Snake Butte foci of the Fort Pierre Branch,[16] the La Roche focus,[17] the Ft. Thompson focus,[18] and the Lower Loup focus.[19] The extension of the Coalescent traits to the northern part of the Middle Missouri area was probably largely a matter of diffusion, whereas the spread into the Central Plains would appear to have been by way of an actual migration of proto-Lower Loup peoples from the southern Middle Missouri area. The abandonment of much of the Central Plains at the end of Upper Republican times would have left a population vacuum in the area after the end of the drought which caused the Upper Republican emigration. Part of this vacuum seems to have been filled by the settlement of the Lower Loup peoples in the Loup and Platte River valleys of central Nebraska. In addition to this expansion of the Coalescent Tradition into the Central Plains, it is possible to recognize three other complexes in the area during the final years of the Sedentary Horizon.

A series of sites on the eastern margin of the Central Plains appear to represent a late variant of the Oneota Aspect. On the basis of Wedel's summary[20] and the description of the materials from the Leary site,[21] the Oneota villages are characterized by a combination of pottery in the Mississippi tradition and non-pottery traits which are also characteristic of the Plains village sites. The Oneota pottery is shell-tempered, plain surfaced, and decorated with trailed, incised, and punctate designs on the rim and shoulder. Most of the vessels have round bases, definite shoulders, and straight or curved rims. Handles are common. The one house excavated at the Leary site is similar to the typical structure of the Upper Republican and Nebraska Aspects. Associated artifacts include small unnotched triangular arrow points, numerous snub-nosed end scrapers, long shaft smoothers used in pairs, grooved mauls, scapula hoes, and a variety of other forms which

15 Will and Hecker, *The Missouri Valley Culture*, 1944.
16 Lehmer, *The Fort Pierre Branch*, 1952; *The Oahe Dam Area*, 1954.
17 Hurt, *Scalp Creek*, 1952.
18 Smith, *Pottery From Talking Crow*, 1951; personal communication.
19 Wedel, *Culture Sequences in the Central Great Plains*, 1940.
20 Idem.
21 Hill and Wedel, *The Leary Village*, 1936.

are characteristic of the late villages of the Sedentary Horizon. The bearers of the Plains Oneota culture seem to have had an economy which was based in part on horticulture and in part on bison hunting in the grasslands. At the Seventh Plains Archaeological Conference, 1949, Carlyle S. Smith[22] suggested that the Plains Oneota might be equated with the historic Osage and Kansa peoples.

The Dismal River Aspect of western Kansas and Nebraska also appears to date in part from the final years of the Sedentary Horizon. There seems to be a general agreement that the Dismal River people were Lipanan Apaches.[23] Dismal River house remains, unlike the characteristic structures of the Coalescent Tradition, consist of a fire pit usually surrounded by five post holes forming the points of a pentagon, and an offset pair of holes which indicates the entrance. Holes of wall posts are rarely found, and the walls probably consisted of "leaners" between the ground and the stringers which connected the tops of the main posts. There seems to be no particular arrangement of the houses within the village, and fortifications appear to be lacking. Dismal River pottery is usually simple stamped, like the Coalescent vessels, but the majority of the rims are high and slightly flared. The elaborate rim modifications characteristic of the contemporary Lower Loup sites appear to be lacking. In general, the non-pottery artifacts from the Dismal River sites duplicate those from the Coalescent villages. Outstanding exceptions are tubular pipes of clay and occasional turquoise beads.

The tubular pipes and the turquoise beads from Dismal River sites probably indicate contact with the third non-Coalescent group which was present in the area during late Sedentary times—Puebloan people who had emigrated from the Southwest to the Plains. Such a movement is indicated both by the Spanish historical sources and the presence of a pueblo ruin in Scott County, Kansas.[24] To judge from Martin's report, the building itself, some of the grinding tools, and part of the pottery appear to be Southwest-derived. On the other hand, a number of the artifacts illustrated such as the scapula hoes, snub-nosed scrapers, and shaft smoothers are types which are characteristic of the Plains villages rather than of the Southwest. Wedel's subsequent work in the *Quartelejo* area showed that Dismal River sites were also present there.[25]

The Sedentary Horizon was the time during which the culture climax of the Northern Plains centered in the villages in the eastern part of the area. Differences between the early villages of the Middle Missouri and those in the Central

22 *Plains Archaeological Conference News Letter*, vol. 3, no. 1, p. 18.
23 Idem; Champe, *White Cat Village*, 1949; Secoy, *The Identity of the Paduca*, 1951.
24 Martin, *Pueblo Ruins of Scott County*, 1909.
25 Wedel, *Explorations in Western Kansas*, 1940.

Plains are of an order which indicate that two distinct cultural traditions were represented. A prolonged drought during the mid-sixteenth century seems to have driven at least part of the Central Plains people northward into the Middle Missouri area. Trait interchanges between Middle Missouri groups and the Central Plains immigrants appear to have led to the development of a Coalescent Tradition which is represented by the late Sedentary villages in the Middle Missouri area and the Lower Loup Focus of the Central Plains. The late years of the Sedentary Horizon also saw the appearance of the Plains Oneota complex on the eastern margin of the Central Plains, a minor influx of Puebloan peoples into western Kansas, and the development of the Dismal River Aspect.

Despite the fact that it is possible to recognize a number of different cultural configurations within the village pattern of the Sedentary Horizon, and to trace an ebb and flow of individual village complexes, there are a number of basic similarities which run through the entire cultural fabric, similarities which bind the various units together into a group which stands in sharp contrast to Northern Plains cultures of other periods.

The great majority of the sites dating from the Sedentary Horizon are located in the eastern part of the Northern Plains, in a region which affords both a grassland environment in the inter-stream areas and a woodland environment in the stream valleys themselves. All of the available evidence indicates that each of the Sedentary complexes reviewed here was oriented so as to make a maximum use of both aspects of the environment, an orientation which expressed itself in a dual economy based in part on river bottom farming and in part on bison hunting in the grasslands.

The agricultural aspects of the economy are attested by the large numbers of scapula hoes and other gardening implements found in the Sedentary village sites, by the frequent occurrences of the charred remains of corn and other garden products, and by the presence of large numbers of cache pits within and between the houses, pits which were almost certainly used in part for storing harvested crops. The location and character of the villages themselves also attest to the importance of sedentary horticulturalism. Village remains in the Northern Plains are almost invariably situated on high ground adjoining the floodplains of the larger streams, floodplains which with their light sod cover and high water table would have been ideally suited for cultivation by aboriginal techniques. With the possible exception of the Dismal River structures, the Sedentary houses were earth lodges whose construction must have involved a considerable amount of labor and which appear to have been occupied more or less continually for reasonably long periods of time. In addition to the work required to build the houses, the fortified villages represent a

considerable additional investment of labor in digging the enclosing ditches and erecting the palisades or breastworks. Thus the nature of the settlements together with the associated cultural remains give every indication that the Northern Plains villages were reasonably permanent affairs whose continued existence depended largely on a farming economy.

However, a wide variety of artifacts and the presence of enormous quantities of animal bone in the village refuse demonstrate that hunting was probably fully as important as agriculture in the life of the villagers. It is impossible to make exact comparisons because of the lack of published quantitative data, but it is my impression, based on work in both areas, that a single Plains earthlodge will commonly yield as much animal bone as will be found during a whole season's work in a Southwestern pueblo. This, together with the presence of the numerous arrow points, knives, scrapers, and other skin-dressing tools found in the Plains villages, points to the large part which hunting must have played in the total economy of the villages.

In addition to the clues which they provide to the economic pattern, the various artifacts found in the Plains villages are also the concrete expression of a well-developed and highly specialized technology. The bison-scapula hoe was probably the most effective digging implement developed in aboriginal America. It must have been the primary gardening tool of the Plains, and the hoes, together with the celts and other heavy woodworking tools, were ideally suited to the digging and the timbering involved in earth lodge construction and fortifying the villages. Similarly, large numbers of well-made arrow points indicate that the bow and arrow was in common use, and the variety of knives, scrapers, fleshers, beamers, etc. make up an elaborate and specialized tool kit for butchering, skin dressing, and similar activities.

The nature of the Plains villages, their artifact inventories, and the available ethnographic data all indicate that the social organization of the village tribes was fairly elaborate. The size and permanence of the villages themselves, together with the evidence of group projects presented by the elaborate fortifications indicate well integrated communities with a considerable amount of social control. This is also indicated by the proportions of the various types of animal bone found in sites dating from the Sedentary Horizon. Bison bone usually makes up well over eighty percent of the total found in the refuse of the Coalescent, Middle Missouri, and Dismal River villages and the Central Plains hunting camps. Bison hunting before the introduction of the horse required a high degree of organization of the hunting parties,[26] and the quantities of bison bone found bear

26 Lowie, *The Crow*, 1935, pp. 72-73.

mute witness to the development of such organization well back in prehistoric times.

The total available picture of the economy, material culture, and social organization of the Plains village groups presents a striking contrast to that indicated for the earlier inhabitants of the area. The complexes known from the Early Hunting and Foraging Horizons indicate an economy primarily oriented around dismounted bison hunting. There are a number of basic similarities between these early complexes and the hunting aspects of the village cultures. However, there are no indications that the early groups made any use of agriculture, and the nature of the few known early campsites indicates fairly small bands rather than the large communities represented by the villages. The presence of charred corn in some Woodland sites, together with the universal occurrence of pottery, indicate that the Plains Woodland people were responsible for the introduction of both agriculture and pottery-making into the Northern Plains. The amounts and kinds of animal bone found in the Woodland sites indicate a very slight reliance on bison hunting in the grasslands, and presumably a lack of the social organization necessary for this activity. Similarly, the nature of the Woodland sites themselves seems to accord better with a simple band organization than with the more elaborate organization which is usually found with large permanent villages. In contrast to the earlier complexes of the Northern Plains, the village cultures appear to have rested on an economy which combined river bottom farming with grasslands hunting. Their artifact inventories are far more elaborate than those of the earlier complexes, and the nature of the villages themselves together with the evidence supplied by the material found in them combine to indicate a much more elaborate social organization than had been known in the area before.

The village cultures of the Northern Plains suffered a sharp decline subsequent to the White penetration of the area, a decline which appears to have been due primarily to the effects of a variety of White-introduced epidemic diseases. The following quotation from Trudeau's Journal, 1794-1795, tersely describes the disastrous effects of successive epidemics on one of the village tribes:

> In ancient times the Ricara [Arikara] nation . . . counted thirty-two populous villages, now depopulated and almost destroyed by the smallpox which broke out among them at three different times. A few families only, from each of the villages, escaped; these united and formed the two villages now here. . . . This nation formerly so numerous, and which, according to their reports, could turn out four thousand warriors, is now reduced to about five hundred fighting men, as I have said, and what is more the lack of harmony which exists among the Chiefs has caused the nations to be divided into four parts. Two of the Chiefs, jealous no doubt of . . . the two chiefs who

now dominate in these villages . . . seceded last spring with their bands; one is gone to make his residence with the Pani-Mahas [Pawnee?], the other with the Mandans.[27]

This account and other contemporary documents give a vivid picture of the decay of the village cultures. The epidemics themselves sharply reduced the total population, many of the villages were entirely abandoned, with corresponding shifts in population distribution, and extensive modifications of the socio-political organization seems to have followed.

The decline of the village cultures during the latter half of the eighteenth century was balanced by the rise of a new climax in the Northern Plains, the climax which distinguishes the Equestrian Horizon from its predecessors. This was the culture of the mounted bison hunters of historic times, of the Arapaho, Atsina, Blackfoot, Blood, Piegan, Cheyenne, Crow, Sarsi, and Teton Dakota. It centered in the Northwestern Plains, and depended primarily on bison hunting with the aid of the horse. The influence of the horse on Plains culture is one of the oft-told tales of American ethnology, and many workers have been considerably impressed by what appeared to be a phenomenally rapid rise of a new and elaborate cultural configuration. While there can be no doubt that the introduction of the horse was fundamental to this development, it must be borne in mind that, as Wissler and others have pointed out, the great majority of the traits which distinguish the culture had been in existence in the area long before the introduction of the horse.

The great majority of the tools and weapons of the horse tribes can be duplicated piece for piece in the archaeological and ethnographic collections from the eastern villages. It is probably a fair statement of the situation to say that, with the exception of those items directly connected with the horses themselves, the material culture of the horse tribes was simply the material culture of the earlier village groups, less those traits which pertain to the sedentary and horticultural aspects of the village life. Pottery, scapula hoes, earth lodges, and similar items which had no place in the life of the mounted bison hunter were not transposed into the new situation. Weapons, skin dressing tools, and all those other traits which pertained to the hunting phase of the village life appear again as the material culture of the horse tribes. In view of this, it also seems likely that many of the more complex elements of the horse tribes' social organization were also transpositions from the older village pattern. Thus, while the development of the late culture climax of the Northern Plains took place within a remarkably short time after the introduction of the horse, it was a development which drew heavily for its basic structure on the older culture of the villages to the east.

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27 Nasatir, *Before Lewis and Clark*, 1952.

In summary, the Sedentary Horizon of the Northern Plains was the period during which the villages of the Middle Missouri and Central Plains represented the culture climax for the area. The village configuration shares a number of traits with the earlier cultures in the area, and it also appears to have drawn heavily on the Mississippi area to the east. In its developed form, it appears to represent the most inclusive adaptation to the environment which was achieved during aboriginal times, and it also appears to have been the source of the basic fabric of the subsequent climax of the Equestrian Horizon in the area.

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NAMES AMONG THE BASSARI[1]

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NO SYSTEMATIC STUDY appears to have been made of names among the Bassari of northern French Togo, west Africa. We have found no trace of such a study on the Bassari in the important work of the German Klose, nor in various articles in the Mitteilungen of Baron de Dankelmann, nor in French collections or the files of the government office.

The giving of names among the Bassari appears to follow precise rules. The name of a child depends on the order of birth and on the clan of the mother, except in the case of twins and of children obtained by the intercession of fetishes.

Bassari twins were considered a curse. Before the arrival of Europeans, at birth still living twins were thrown by an old woman into an ant hill where an old man had previously dug a hole. None having been allowed to live, names for them had not been provided. That is why, when peace imposed by Europeans forbade these deaths, the Bassari had to appeal to foreign traditions, which were incorporated somewhat by chance.

Some (clans Nawalé and Nataka) borrowed their designations from Cotokoli: Alassani and Fusséni for boys, Fatuma and Assana for girls. Others (Nankiri, Nayur, Sondo, Trebabe) call twin boys Dahun and Dana and girls Pohun and Pona. For mixed twin births certain clans (Koli) use Ata for the boy and Gado for the girl, for others they utilize any name.

Children obtained as a result of intercession of fetishes are called after a function of the fetish invoked. Thus Nyala or Apo (Nyala is the Cotokoli name of Mono) comes from a proceeding performed at the source of that river. Sometimes the child is called Ndabitche, meaning "I have paid it at their place," that is to say, near the fetish.

Each of the Bassari clans makes use of a fixed series of masculine and feminine names. It is difficult to say why certain clans have five names for boys and five for girls, others more, others fewer. The explanation is sometimes found in an ancient tradition relating to the origin of the clan wherein an ancestress (as in the case of the Sondo clan) had had, for example, five boys and four girls.

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BASSARI CLANS, VILLAGES, TABUS, AND CHILDREN'S NAMES

Clans	Koli	Bi Mwalbé	Nafal	Nakol	Nankati	Nukiri Kamakabiam
Villages or quarters containing these clans	Bidjabé Binaparba	Dikutigbandi (a part)	Byakpabe	Binawalba Jimbiri	Kpankpassi Nangbani (Obridumpu)	Moandé
Tabued	Boa Lizard	Crocodile	Crow Viper (serpent cracheur) Crocodile	Panther Boa Python Crocodile Gorilla Squirrel	Panther	Hippopotamus
First son	Kpanté	Baba	Kpapo	Tchapo	Lantam	Gafo
Second	Nadjombé	Mako	Tchandikou	Tchén	Tchontchoko	Wapondi
Third	Gnô		Agbanti	Kpandja		Napar
Fourth	Nabin			Okaté		Ymboti
Fifth	Djawé					Bundju
Sixth						
First daughter	Gnamba	Lova	Walim	Nunko	Djidjao	Djutib
Second	Dapo		Agbassi	Dolib	Nga	Yakae
Third	Djaï		Sôm	Tchonanké		Jambir
Fourth	Mawaté			Sôndo		Sôndo
Fifth	Kpindi					

BASSARI CLANS, VILLAGES, TABUS, AND CHILDREN'S NAMES (CONT'D)

Clans	Nataka	Nawale	Nayur	Sondo	Trebabe Kuni ébiam	Wattara	Gbanjabiam
Villages or quarters containing these clans	Kébédipu Bikpassiba Kankundi Nangbani (Tchadumpu)	Obatédumpu (Kabou) Binadjube (Sara) Farédumpu (Sara) Bétédumpu (Sara)	Kpankpessi Bikudjiba Bikuliba (partially)	Ekore Dikutigbandi (a part)	Langondi	Bigbandjabé (Kabou) Kodjodumpu	Moandé (Bikpadjabé)
Tabued	Panther Python	Pig Horse Dog-faced ape (*Cynocephalus*) Dog	Python Crocodile Palm rat	Lizard	Python Crocodile Hare	Panther Python Horse Ass Monkey	Gorilla Monkey
First Son	Gbati	Kondi	Tchapo	Bugonu	Wombur	Kwassi	Nandja
Second	Napo	Nikabou	Waké	Faré	Daku	Kodjo	Kpaa
Third	Gbandi	Gnandi	Uyi	Tchédré	Udjukuti	Koffi	Wagna
Fourth	Lantam	Dare	Gbaré	Gnofam	Ulod	Arufa	
Fifth	Kissao	Unon	Ido	Bundju	Ago	Kudjuku	
Sixth			Ayido (list complete)		(complete)	Komlan Kwami Abu	
First Daughter	Numfon	Mutoni	Kungbon	Bukumpu	Nawo	Amwin	Okpane
Second	Ikpini	Nikpibe	Wapondi	Wanu	Gniti	Adjoa	Nafi
Third	Adja	Pombo	Gnankan	Djanka	Bingai	Yaba	Matu
Fourth	Mumfaé	Djabi	Obo	Wananké	Djanjuba	Awu	
Fifth	Kidjui	Kpinde	Marib			Mani Amina	

The clans Koli, Nataka, Nayur, and Nawalé use five names for boys and as many for girls. The clan Nakol has four boy's names and four for girls. The clan Nafal has three names for boys and three for girls. The clan Nankati has two for boys and two for girls. And so on.

One clan among those of the Bassari merits special mention: this is the clan Wattara, which is a group of Tyokossi of the Kodjodumpu quarter in the village Kétangbao. We can help ourselves in understanding the Bassari custom of ordinal names which are being given, in their origin after the days of the week. The Tyokossi came for the most part in the eighteenth century to Sansanné Mango from the region of Kong (Ivory Coast). Their language, close to Baulé with some Mandingo terms, owes its name for children to the days of the week. Apparently this custom had already undergone some modifications at Mango when the clan Wattara, led by a certain Kodjo, came about 1870 (just before the Dagomba invasion) to found the Kodjodumpu quarter. The weekday names are given somewhat haphazardly from their proper order. But a curious phenomenon of returning to the bestowal of weekday names has been taking place recently because of the numerous journeys of the natives to Kumassi, in such a way that now there are no fixed rules.

The names which we give in the accompanying table are those most generally employed, but variants exist. Thus the clan Sondo of Dikoutigbandi has five names for boys and three for girls: Gbandi, Faré, Tchédrè, Bugonu, Bundju and Umséu, Saï, Nafi. As one can see there the order of names is modified a little.

Finally, the appearance of the Christian missions, trips to Lomé and the Gold Coast, and marriages with individuals of other races again are modifying the conditions for bestowal of a name.

The table which we present is surely not complete and it undoubtedly contains errors. We have inserted the principal quarters and villages of which the clans "speak Bassari." We have also noted the tabu animals connected with the clans, forbidden to be eaten and often to be killed.

In "Benito Cereno," the novel by Herman Melville, which involves the action of revolted slaves aboard a slave-ship, we find (page 158 of the edition of the Book Guild, Lausanne) the name Chofan. This name could be an error of transcription and may correspond to the Bassari name of Gnofam. In this regard it would be extremely interesting to search for Bassari names in the records of the slave trade, as well as for those of Bassari origin among the African-like names of American blacks and mulattos. Perhaps in certain popular beliefs of Haiti or the Guianas one will find also traces of some of the tabus attached to their clans.

Dapango
Togo Français

FATHER'S BROTHER'S DAUGHTER MARRIAGE IN KURDISTAN

FREDRIK BARTH

THE PREVALENCE of preferential father's brothers' daughter marriage in the Middle East, and its association with Islam, has frequently received reference. Yet no clear picture of the possible structural implications of this form of preferential marriage has emerged, nor of the actual distribution and frequency of the practice. The present paper attempts to analyze the relationship between the Kurdish form of segmentary lineage organization and this marriage pattern.

Any chart of unilineal descent in a stable or expanding population constitutes a ramifying system where succeeding generations in many lines tend to be larger and more inclusive than the preceeding. It is this chart, generally in compressed form, which is utilized to organize a descent group in the form of a segmentary lineage organization. This organizational form was named by Gifford and later by Firth, who called it a "ramage," and first analyzed fully by Evans-Pritchard.[1] Recent work on this type of organization has been lucidly summarized by Fortes.[2]

In almost all the lineage systems described in the literature, the lineage, or the clan of which it is a part, is an exogamous group. This fact of exogamy has important implications, e.g. for the development of dispersed clans and normalizing of a "daughter's son" relationship as a mechanism for grafting foreign lineages to the dominant lineage of an area (as described for the Nuer), and it is further frequently reflected in the whole construction of kinship terminology.[3]

Lineage exogamy is, however, no essential feature of lineage systems. No matter what the marriage pattern in a population may be, a strict chart of *uni*lineal descent offers an equally clear framework on which a segmentary lineage organization may be based. In a patrilineal system, matrilineal ties may be regarded as totally irrelevant to the political relations of segments and whole lineages—marriage patterns may, so to speak, be "liberated" from their role in defining the relations between political groups. This lack of association of lineage organization and exogamy is common among Semitic and Iranian tribes of the Middle East,

1 E. W. Gifford, *Miwok Lineages and the Political Unit in Aboriginal California* (American Anthropologist, vol. 28, pp. 389-401, 1926); Raymond Firth, *We, the Tikopia* (London, 1936); E. E. Evans-Pritchard, *The Nuer: Tribe and Clan* (Sudan Notes and Records, 1933-1935), and *The Nuer* (London, 1940).

2 Meyer Fortes, *The Structure of Unilineal Descent Groups* (American Anthropologist, vol. 55, pp. 17-41, 1953).

3 F. Eggan, *Social Organization of the Western Pueblos* (Chicago, 1950).

and in the same area possibly also among some Caucasian groups.[4] However, though marriage patterns do not function to define the relations between lineages, this does not assume that marriage relations and maternal ties have indeed no relevance of a structural or specifically political nature. The present paper presents an hypothesis regarding these implications in the Kurdish lineage organization, specifically the meaning of a pattern of father's brother's daughter marriage, for the consideration of students working with similar problems in the Middle East.

Features of Kurdish culture and society have been described elsewhere,[5] but might be summarized briefly.The Kurds are a linguistic and ethnic group, nearly exclusively Moslem by religion, totalling some three million people.[6] They occupy a semi-continuous territory along the hills and mountains east and north of the Fertile Crescent, divided between the modern states of Persia, Iraq, Turkey, the U.S.S.R., and Syria. Some few groups of Kurds have remained nomadic till the present day, following their herds of sheep, goats, and large cattle into the mountains in the summer and down on the plains in the winter. The great majority are today subsistence farmers, many of whom practice a pattern of localized transhumance. The present discussion relates to the southern districts of Iraq Kurdistan, where material was collected in the field from February to August, 1951.

Two basic types of organization were found: a tribal system, based on descent, and a feudal system, based on class and land ownership. The latter is progressively becoming assimilated into the modern structure of the state of Iraq; the former, a patrilineal lineage system, survives only among the nomads and a minority of the farmers in the more isolated territories.

Kurdish tribal organization is a segmentary lineage organization of very simple type. The largest kinship unit, the *tira,* is a maximal lineage, divisible into segments according to the charter of patrilineal descent. The genealogical depth of the tira varies. For the sedentary Hamawands (location: Kirkuk Liwa, Iraq), the apical ancestor is nine generations removed from the present adult generation; for the nomadic Wurda Shatri (location: centering in Suleimani Liwa, Iraq), twelve generations.

Several tiras may be united, though not necessarily, in a political confederacy of variable endurance, the most important in southern Kurdistan being at present

4 Louis J. Luzbetak, *Marriage and the Family in Caucasia* (Vienna, 1951).

5 V. F. Minorsky, "Kurds and Kurdistan" (in *The Encyclopedia of Islam,* London, 1913); E. R. Leach, *Social and Economic Organization of the Rowanduz Kurds* (Monographs in Social Anthropology, no. 3, London, 1940); Frederik Barth, *Principles of Social Organization in Southern Kurdistan* (Universitetets Etnografiske Museum, Bulletin no. 7, Oslo, 1953).

6 *The Middle East* (Royal Institute of International Affairs, London, 1950).

the Jaf confederacy of nomadic as well as sedentary tiras. The following discussion will, for the sake of simplicity, relate only to the Hamawands, an independent tira of population ca. 1000-1500, which became sedentary some two or three generations ago.

The lineage organization has two main areas of relevance: land ownership, and defence and offence in war. Property rights to land and grazing area are held jointly by the tira as a whole; exclusive usufruct rights are vested in its localized segments, inhabiting compact villages with a population of 50 to 200 individuals. Within the village territory, men have traditional rights to certain fields. These rights are passed on from father to son, but are not inalienable, and land is freely redistributed by the village council when the need arises. If a segment becomes extinct, its territory passes as normal inheritance to the other segments of the lineage, according to the degrees of kinship (on any one level of segmentation, "brothers" exclude "cousins" from inheritance).

Further, until successful pacification in 1932, the lineage was, and still is potentially, also a military unit, mobilized in toto if a segment were attacked from without, and divided in opposition according to the segmentary charter when conflicts arose within the group. Conflicts relating to territorial rights were rife, both within, where they led to fission, and without, where they led to conquest or loss of territory.

There is a clear contrast between the Kurdish and most African systems in the readiness with which the problems of fission and fusion are solved. A man's rights to land are limited to the territory of the village segment of his lineage; a stranger or a person from another lineage segment is accepted into a village only as hired farm help ("sapani") of degraded status. The territorial exclusiveness of lineage segments thus tends to be maintained to high degree, and there are no kinship mechanisms for developing "attached" lineages with local territorial and political rights.[7] The segmentary nature of the maximal lineage expresses itself directly in geographical distribution, and the respective territories of major and minor segments, inhabited nearly exclusively by them, down to the village level, can be plotted on a map or clearly seen where one has a view of the valley bottom. The main integrative factors relevant to segments larger than the village seem to be territorial contiguity, knowledge of common descent, and the importance of the tira as a defensive unit—this last probably being of most weight. No religious or ritual

7 A permanent relationship may occasionally be established between a conquering lineage group and a conquered, non-tribal peasant population, who retain certain rights as serfs of the ruling lineage. In these cases, a caste barrier is set up, preventing intermarriage between the two groups. This relationship, observed on the northern margins of Hamawand territory, does not seem to be very stable.

mechanism exists for bringing together any group larger than the village, and no symbiotic relations of a practical or ritual nature have been developed.

This organizational form is associated with a strong emphasis on the father's brother's daughter as preferred spouse, and marked tendency to close family endogamy. The strength of emphasis is indicated by (1) expressed norms, (2) relative brideprice, and (3) actual statistical occurrence.

(1) Informants agree that paternal cousins have first rights to a girl, and where the father of a girl contemplates giving her in marriage to anyone else, the paternal cousin must first release her by renouncing his claim. Cases of violence resulting from breach of this obligation on the part of the father were collected in the field and have been recorded by others in the literature.[8] Giving one's daughter to a brother's son is further considered thoughtful and proper: the father knows his daughter's spouse well, and will also be able to exert some control over his actions toward her after marriage; marriage should be between equals, and no one is closer in status and sentiments than a paternal cousin. Small children are pleasantly embarrassed when teased for being "in love" with their paternal cousin. The importance of endogamy in maintaining family property is also recognized, though the problem only arises with any degree of gravity where Koranic laws of inheritance, giving stipulated fractions of the estate to female descendants, are strictly followed, and this does not generally seem to be the case.

(2) It is an agreed privilege for paternal cousins, to less extent also other near kin, to receive the girl at a reduced brideprice. The normal brideprice for village girls ranges between £30-100. Paternal cousins generally pay only wedding expenses.

(3) The actual frequency of father's brother's daughter, and other cousin, marriage is high, apparently ranging around fifty percent. The degree of relationship between all living spouses in two normal sized Hamawand villages fall into the following categories:

		Fa and Mo				
FaBrDa (amoaza)	MoBrDa (khaloaza)	SiDa (purza)	Other relative	Unrelated, in village	Other village	Total
9	1	2	3	2	4	21

Taking the normal fluctuations in size and sex distribution of sibling groups into account, this probably approximates the maximal frequency that marriage with actual, non-classificatory paternal cousin can reasonably attain.

8 E.g. W. R. Hay, *Two Years in Kurdistan* (London, 1921), p. 71.

Where the cost of marrying an unrelated, "stranger" girl is so high and the normative preference for near kin clear, the inducement for the young man to seek a bride among his cousins is evident. Consequently, the young men make the "right" choice though they appear subjectively to feel, and invariably express the opinion, that they are entirely free to seek any bride they might wish. The problem in this situation centers around what the motivation of the girl's father is, that he should forego his right to a brideprice which, to the Kurdish farmer, constitutes a minor fortune. Or put somewhat differently, the central problem is: what are the advantages gained in this system by giving one's daughter to a brother's son which compensate one for the loss of the brideprice.

The answer would seem to lie in the political structure. In the Kurdish lineage system, all groups are subject to a constant pressure towards segmentation and fission, unmodulated by the interlocking circles of identification normally associated with segmentary descent systems (among the Nuer, territorial vs. descent groups, cross-cutting age-grades; among Tallensi, further the ritual collaboration between lineages, etc.). This pressure is painfully evident in factional activity within the villages, and emerges in all first-hand descriptions of Kurdish life.[9] Kurdish villages are characterized by a constant struggle for political power on the part of a majority of the adult men, at times even women. Such political power is proportional to the number of riflemen one can mobilize to support one's claims. In a patrilineal lineage system, a man can expect political support only from his agnatic relatives, those who by descent belong to his political sub-section; and the factions in the village tend to be alignments of the younger men of a small lineage segment around an older leader. These segments consist primarily of brothers, sons, and brothers' sons. The relation to the latter is most critical: it crosses the first potential line of cleavage between collateral branches. If a man alienates his nephews by refusing them their traditional rights, he loses their political support. If he, on the other hand, gives them his daughters in marriage, the ties are reinforced and lineage solidarity maintained. The girl's father creates an obligation on the part of his brother's son to give him political support by exempting him from paying the brideprice. No other son-in-law can, in the lineage system, fill this role as political supporter; consequently they must invariably pay brideprice. The transaction may thus be regarded as constituting a type of delayed exchange: the father receives political allegiance in his lifetime from his brother's son in return for the daughter which he gives him. In this way, the pattern of preferential father's brother's

9 E.g. C. J. Rich, *Narrative of a Residence in Koordistan* (London, 1836); E. B. Soane, *Through Mesopotamia and Kurdistan in Disguise* (London, 1926); Hay, *op. cit.*

daughter marriage serves to reinforce the political implications of the lineage system.

If this view is generally correct, one would expect to find a high frequency of father's brother's daughter marriage associated with a developed lineage organization in the Middle East, and the frequencies to be appreciably lower in villages with a different type of organization. In the southern Kurdish area, this is clearly so: for other areas, the literature gives no conclusive evidence.

In the southern Kurdish feudally organized territory, neighboring on the above discussed Hamawand territory, the comparative picture might be summarized as follows: (1) The expressed norms are modified, though not basically changed. First rights of paternal cousins are not as strongly emphasized, and the ideal of equality between spouses tends to be interpreted in terms of village endogamy rather than with reference to descent group. (2) Brideprices tend to be lower for all categories of husbands, especially those of the local community (this holds true for the villages, not for the larger towns, where great variations in class and wealth intervene); some villages have made formal agreements that no brideprice should be charged within the village unit. An alternative and moderately popular way of avoiding brideprice is the sister exchange between two indifferently related men. (3) The actual frequency of father's brother's daughter marriage clearly drops, while village endogamy (in villages generally larger than those with a lineage organization) remains high. A complete census of marriages in one such non-tribal village may serve as an example:

Fa and Mo						
FaBrDa (amoaza)	MoBrDa (khaloaza)	SiDa (purza)	Other relative	Unrelated, in village	Other village	Total
6	1	1	9	19	10	46

This picture would seem to be consistent with the views expressed above.

Hilma Granqvist[10] gives some comparable material from an Arab village in Palestine, where the local community is divided into patrilineal descent groups, called clans, apparently of a segmentary type; but where several of these descent groups reside together in a large village, and have no wider political or territorial importance. She offers the following frequencies of degree of relationship between spouses in one village:[11]

10 Hilma Granqvist, *Marriage Conditions in a Palestinian Village* (Helsingfors, 1931).
11 *Idem*, pp. 81, 92, 194-195.

FaBrDa	Total marriages within clans	Between unrelated co-villagers	With strangers	Total
35	89	62	113	264
13.3%	33.7%	23%	42.8%	

There is some suggestion that clan endogamy has similar factional implications in this situation as lineage segment endogamy has in the Kurdish system, but that the emphasis centers on the opposition between co-resident clans—witness the discrepancy between 33 percent marriages within own clan vs. 23 percent with unrelated co-villager, in a village where four major and six smaller clans co-reside. Yet Granqvist prefers the standard explanation: " . . . marriage with the father's brother's son is preferred to any other marriage in order to prevent a stranger taking possession of the property and inheritance of the family."[12] This even though her argument is further weakened by the fact that her villagers do not observe the proper Koranic rule[13] of giving both male and female relatives of the same degree a share of inheritance, in the proportion 2:1— " . . . even if it be seldom that a man die without leaving any sons, yet the possibility affects it so far as to allow marriage between the children of brothers to appear specially desirable."[14]

Chapple and Coon offer a theoretical analysis of parallel cousin marriage, with special reference to the Bedouin[15] which, if I have understood their argument correctly, emphasizes the incompatibility of a subordinate son-in-law relation to a non-relative with a system of strong political and economic identification with the lineage segment—in this case seen as composed of father, son, and father's brother. This incompatibility is then resolved by a pattern of establishing the son-in-law relationship with the father's brother, through marriage with a father's brother's daughter. This appears as a rather round-about way of attacking the problem from the point of view developed here; but their discussion indicates that the present viewpoints are not inapplicable to this marriage pattern among the Bedouin.

The points of view expressed above might be summarized briefly. As contrasted to most African systems, marriage patterns among the Moslem peoples of the Middle East are liberated from their role in expressing the relations between segments of a larger lineage system. The potential relevance of these patterns to social structure may then theoretically be utilized in various ways.

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12 *Idem*, p. 78, where further references to this view are given.

13 A. S. Tritton, *Islam, Belief and Practices* (London, 1951), p. 66.

14 Granqvist, *op. cit.*, p. 78.

15 E. D. Chapple and C. S. Coon, *Principles of Anthropology* (New York, 1942), pp. 305-306.

In many areas of the Middle East, a pattern of close family endogamy and preferential father's brother's daughter marriage has been assumed to be associated with a desire to maintain family property in the face of Koranic rules of inheritance. The apparently exceptionally high frequency of father's brohter's daughter marriage among the Kurdish tribes with lineage organization, and possibly among other groups with a similar organization, requires separate explanation. The thesis of this short discussion has been that such a pattern of father's brother's daughter marriage plays a prominent role in solidifying the minimal lineage as a corporate group in factional struggle. Marriages of this type thus serve to reinforce the political implications of the lineage system, *not*, as in most African systems, relative to the relations between whole lineages, but here, on the contrary, relative to the first potential lines of fission and segmentation within the minimal lineage itself.

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TLINGIT IDEAS ABOUT THE INDIVIDUAL

FREDERICA DE LAGUNA

THE INDIVIDUAL OR SELF, as conceptualized by the northern Tlingit, has several aspects or facets. There is a social aspect, determined primarily by birth into lineage, sib, and moiety, and by lowly or elevated ancestry. The social aspect is further determined by the actions of relatives and by the individual's own character and accomplishments. The self has a temporally limited corporeal aspect, the "body." The spiritual aspect, or "soul," however, has an indefinite temporal extension, comprising not simply the present life, but running through the afterlife and pre-life to include other incarnations. A person's name or names express both his present social position and his other existences. The individual may also be considered as having a supernatural aspect, though no sharp distinction is made in Tlingit thought between what we call natural and supernatural. It is through this supernatural side that the individual is drawn into intimate relationship with supernatural powers. He may manipulate such beings or forces himself, or be affected by them, sometimes becoming so identified with the supernatural that he may even lose his human identity.

These different aspects of the individual are sometimes conceived almost as separate or separable parts; at other times they are fused or confused; but they are not clearly integrated to constitute a unique or single entity. Thus, while there is no consistent or unified concept of the individual, so that we are forced to distinguish between the various notions about the several aspects, it is, nevertheless, almost impossible to discuss one without reference to the others.

The data upon which this sketch is based were gathered in 1950 and 1952 at two widely separated villages of the northern coastal Tlingit, representing somewhat different cultural traditions, and these data are supplemented by information obtained from the northern interior Tlingit in 1948 to 1951.[1] While many of the

1 The field trips on which these data were gathered were supported by the Wenner-Gren Foundation for Anthropological Research, the Arctic Institute of North America (with funds from the Office of Naval Research), the National Museum of Canada, and the American Association of University Women. The author gratefully acknowledges the collaboration of Dr Catharine McClellan in the field and in preparing this report. For the character of the communities visited, see Catharine McClellan, "The Inland Tlingit" (in *Asia and North America: Transpacific Contacts*, Memoirs, Society for American Archaeology, no. 9, pp. 47-52, 1953) and Frederica de Laguna, "Some Problems in the Relationship between Tlingit Archaeology and Ethnology" (*idem*, pp. 53-57).

statements about specific cultural details or particular explanations were given by only one or two informants, the conceptualizations to which they referred or which they expressed were remarkably consistent, despite geographical range and varying degrees of acculturation. The practices and beliefs here cited are either current, or belong to the past fifty years, unless otherwise noted.

I. THE SOCIAL SELF

The social aspect of the Tlingit individual is defined by his place in moiety, sib, and lineage; his social status or being is in part revealed, in part determined, by the names, ordinary or honorable, that he bears.[2] Rank is important and is expressed by a variety of terms, such as 'an-yʌdi, "child-of-the-town," i.e. of noble descent, or t'let'ʌkʷ'-q'a 'an-yʌdi, "crystal aristocrat," to indicate unblemished ancestry. A house chief is hɑt-s'it'i, "master-of-a-house"; the chief of the leading house of a sib is łɑngit-tłen, "big man," apparently used interchangeably with 'an-q'awu, "man-of-the-town," to designate an important man, a chief, a wealthy man. The bastard and the neglected orphan are nɑck'a-yʌdi or nɑtcq'a'a, implying that they belong to the uninhabited beach, and they are classed with the slave, guxʷ.

Social status depends not only upon ancestry, but upon the actions of one's living relatives, especially in giving potlatches or feasts at which one is honored; it also depends upon one's own actions, character, and fortune. Industry, intelligence, good luck in amassing wealth, generosity towards others, forebearance, "kindness," are all marks of the aristocrat. Their possession or attainment may raise a man of mediocre ancestry in public esteem and in social status, so that he may even become a chief. Conversely, laziness, quarrelsomeness, arrogance, and stinginess debase a person of unblemished descent, as would, in former times, capture or enslavement without subsequent reinstatement through a potlatch, or becoming so poor that one was dependent upon the charity of others (becoming literally a "dried-fish slave"). Lying, stealing, unjustified homicide, intimate association between sib or moiety "brothers and sisters" (or worse, incest between them), and witchcraft, all bring disgrace not only upon the guilty individual but

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The phonetic system for Tlingit words is that described by Franz Boas, *Grammatical Notes on the Language of the Tlingit Indians* (Anthropological Publications, University Museum, University of Pennsylvania, vol. 8, no. 1, 1917), pp. 9-12. Because of limitations of type available the glottal stop follows *s* and *k* instead of being superimposed and *y* is printed for this letter with subposed dot.

2 For an outline of Tlingit social organization and of the place of the individual within it, see Frederica de Laguna, *Some Dynamic Forces in Tlingit Society* (Southwestern Journal of Anthropology, vol. 8, pp. 1-12, 1952).

upon all his relatives. Good looks, physical strength and endurance, courage, wit, eloquence, skill in hunting, in crafts and in composing songs, expertness as a dancer or singer, etc., are all admired personal qualities by which individuals are distinguished.

Many of these desirable traits, as well as success in one's endeavors, can be secured through "medicine" (nak^{w}), "dope" (k'ayani, literally "green plants"), amulets (danak^{w}, "outside or surface 'medicine' "), by the performance of wishful magical "exercises" (hex^{w}a), and also by observing at the proper times the proper purifications and abstentions (bathing, purging, fasting, thirsting, avoidance of certain foods, chastity, refraining from speech or work or other activities, avoidance of contact with the contaminating, etc.). Often the measures are directed primarily towards others and act, for example, by arousing passion in a desired woman, by blinding rivals to one's mistakes in dancing and singing, by weakening an opponent. Such measures could even secure success in hunting by affecting the animals. The distinction between being oneself irresistible, skillful, or lucky and of making others, animal or human, respond in desired ways is not always clearly drawn. Similar magical means are also relied upon to secure health and longevity for oneself and one's relatives, to ward off witchcraft and other sources of evil, or to influence such phenomena as the weather. In addition, disasters of various kinds can be avoided by observing the proper taboos (łɨ-gas, "be careful"). A number of these rules have been described by our informants as "laws of nature," implying perhaps that they are so rooted in the order of the universe that to disregard them is almost unthinkable. Failure to observe them means death to onself and to one's relatives.

Despite the emphasis in this matrilineal society upon the mother's sib that is made up of one's close relatives, paternity is not only biologically recognized, but at every point in the life cycle it is socially and magically stressed. Persons are believed to resemble their father's relatives in looks and personality traits just as much as their mother's. They are taunted in fun or in earnest with the foibles and shortcomings of their fathers and their father's sibmates, and they identify themselves with, or at least share in, their "fathers' " glories. Thus a daughter of the teqwedi sib is expected to be and tries to be brave, because the teqwedi are courageous. In all life crises, the individual is ritually aided by the closest paternal, or affinal, kin, the two being ideally the same and subsumed under the common term gon^{ɛ}tkanayi. The orphan (a fatherless child who lacks the protection or recognition of a step-father), the bastard, the child of slave descent or of an incestuous union are all socially incomplete because they lack the relatives necessary to complement their expected roles or to perform ritual acts essential to their

welfare. But in a deeper sense, for the last two or three cases at least, such a child is incomplete as a person because he lacks the proper ancestral lines.

These ancestral lines are ideally conceived as ever-intertwining and the marriages between them as ever renewed or perpetuated, for the man weds a "father's sister" (real or classificatory) and the woman a "father's brother," and on his or her first marriage usually "takes the place" of a dead sibling or maternal relative (uncle or aunt) by marrying the latter's widowed spouse.[3] The individual or self is perhaps never ideally complete, unless it is the product of the correct ancestral lines, is mated again to the paternal line, and procreates children of the same ancestry. In practice, however, material advantages are to be derived from having grandparents and affinal relatives in several different sibs, or personal preferences may be strong enough to override family pressure in the choice of a mate. The genealogical record of no individual, even of the highest rank where the ideals are most stringently emphasized, actually embodies this theoretical ideal.

II. THE "BODY"

The "body" is sometimes conceptualized as a covering or garment which the "soul" leaves at death or temporarily vacates when a person is apparently dead. However, the body is more than this. It is symbolically formulated in terms of the "eight joints" or "eight big bones": Right forearm, R upper arm, Left upper arm, L forearm, L thigh, L shin, R shin, R thigh, the parts being named in the ritually prescribed "sunwise" direction. It is this symbolism which is manipulated to insure reincarnation and it is directly or indirectly implied in the treatment of the adolescent girl, the widowed or bereaved, and the corpse, in order to secure longevity and health for the individual concerned or for the relatives. Ritual seclusion, fasting, purification, or magical "exercises" (hex̱a), etc., fall into periods of eight days, usually with reference to these eight bones. The observances of the adolescent girl or of the youth in training are said to strengthen or "complete" these bones. Among the interior Tlingit the girl's seclusion should last for two years, fulfilling a round of eight seasons for her eight bones.[4] Many magical acts

3 The Tlingit have a Crow type of Kinship terminology, their social structure being what Murdock defines as Avuncu-Crow (George Peter Murdock, *Social Structure*, New York, 1949, pp. 245-248).

4 Our coastal informants were vaguer about the ideal length of the puberty seclusion, although two years was also mentioned by some. Dr McClellan's data from the interior Tlingit about observances for women at puberty, childbirth, and menopause are fuller than those which we obtained from coastal groups, although the patterns and attitudes are similar. This difference may be due to greater elaboration of such observances in the interior, but this is hard to say, since the interior Tlingit are less acculturated and still practice what the coastal Tlingit gave up fifty years ago.

are supposed to be repeated eight times, or even eight times on eight successive days, as when, for example, the adolescent girl, the widowed, and the peace-hostage rub their lips sunwise with a hard round stone to make them heavy and their tongues lazy, lest they cause trouble with their mouths. We suspect that the four-day or four-times cycle is really the full eight-times period or repetition that has been shortened for necessity or convenience. The eight potlatches that traditionally affirmed or validated nobility, or the eight-day vigil of the novice shaman, and the eight animal tongues cut by the shaman to complete his powers are also said to have reference to the eight-fold concept of the bodily self. Or the body may be thus conceived because of the mystical emphasis upon eight.

Different aspects of the self or different potencies of the individual are associated with different parts and organs of the body. Thus, the "guts" are the seat of the emotions and "feel soft" towards those whom one likes; a close friend may be called one's "liver." Similarly, the breath may be equated with life. Such associations also apply to animals and dictate the parts that should be accorded special treatment by the hunter, or the parts that may be used to transfer the animal's desirable qualities to a person by magical application.

The head seems to be a particularly important part of the body. It receives the most embellishment in the form of face paint, headdress or hat, earrings, nose-ring, and labret. Injury to the head or face calls for the payment of particularly heavy damages. An insult is like a smear on the face which must be ceremonially wiped off by a potlatch. The shaman summons his spirits by donning the masks that represent them. Something of his power resides in his long hair, the strands of which move of themselves during a seance, like octopus tentacles. If his hair is shorn he will die because he has lost his powers. Some say a child with curly hair is destined to be a shaman. The skull of a dead shaman may be handled by those wishing to inherit his spirits. The heads or scalps of famous warriors slain in battle are said to have been preserved by their relatives or by vindictive enemies (as mementoes, or as repositories of their prowess?). In art, the head or face is the most important motif, not only portraying the actual head of man or beast, but is repeated on other parts of the body, and may symbolize the in-dwelling "soul," while the eye alone may designate a joint.

The glance of a person (because the "soul" is in the eyes ?) has special potency. The people's looks are said to be capable of killing a dancer.[5] If an adolescent girl looks at "daylight" or the sky, it will storm; and according to mythology, her gaze may turn persons or animals into stones. Conversely, if she

5 John R. Swanton, *Social Condition, Beliefs, and Linguistic Relations of the Tlingit Indians* (26th Annual Report, Bureau of American Ethnology, pp. 391-485, 1908), p. 435.

looks at certain live animals, such as fish, she will shake like them with palsy in her old age.

Skill, especially in healing, is associated with the hands. Women rubbing-doctors and regular shamans could cure by manual manipulation of the patient's body. The nail parings of a child are fastened to the paintbrush of an adult so that the child may acquire the latter's artistic dexterity. The essence of personality clinging to the hair or nails of a dead person can be absorbed into the womb of a woman relative who wears them at her waist and so induce the reincarnation of the dead in her next child.

A person's hair, nails, clothing, or half-eaten food scraps can become "witches' dirt," through which he may be visited by disease or death if a witch places them beside a decaying corpse. Often the part of the body afflicted is said to be that from which the "dirt" was derived, or corresponds to the part of the corpse with which the "dirt" was in contact. A form of divination employed by the interior Tlingit to determine the fate or whereabouts of an absent hunter consists in observing the behavior of eight small knots that are placed on a hot rock. These knots are made in fringes cut from a garment or strings from a pack strap that have absorbed something of the owner's personal essence.

The umbilical cord is also a vital part of a person. It is worn by the baby until "he is old enough to learn," when that of a boy is put into an animal burrow, so that he will become brave enough to pursue bears into their dens. The interior Tlingit may put a girl's in a gopher nest so that she may become skillful in gopher snaring, or her cord, together with beads and thread, may be left in the dust made by wood worms under a tree, because the wood worm is clever and neat.[6] A restless, mischievous little child is said to be looking for his lost umbilical cord.

The blood of menstruants or of parturients is especially deadly to others, and even proximity to such contamination is dangerous for hunters, since it may destroy their luck or imperil their lives. A shaman cannot properly perform near a menstruant, and conversely, the menstruating woman is particularly vulnerable to injury if she comes near a shaman's paraphernalia.

Abstention from sexual intercourse for days or months in advance is practiced by those who repair a shaman's gravebox, by those who seek shamanistic powers or luck in hunting, etc. There is even a suggestion that in the old days there was a regular mating season, with the hunters avoiding their wives at other times. Many taboos and magical "exercises" are furthermore enjoined upon the wives of men who engage in magical, shamanistic, or dangerous activities, because of the sexual intimacy between the spouses. A man or woman to whom a shaman's spirits

6 The coastal Tlingit may weave it into a basket to make her skilful.

were coming might reject them by having intercourse, though this would be at the risk of serious illness or even death.

It was denied that there were ever institutionalized berdaches or transverstites, but the "half-man, half-woman" (gaṭxan, "coward") is said to "come back," i.e., be reincarnated in a certain sib, because a woman of this sib married the Sun and had such a person as her eighth child. Sex is apparently not an unchangeable attribute of a person. Thus, not only may sex be changed at reincarnation, but at menopause (according to the interior Tlingit) the woman "changes back to a man again." The "exercises" observed at this time are not only to make her wise, etc., but also to "make her a hunter again."

Some bodily aspects of the person are reified, as in the story of the man who killed his own sleep in the form of a bird, the bobwhite.[7] A person's mind or thoughts are similarly embodied in the chickadee. If one hovers near it is a sign that someone is thinking of you and will soon come on a visit. At a recent funeral, the little bird that hovered over the mourners, lit on the coffin and then flew into the sky was apparently felt to represent the deceased's thoughts or the spirit that was saying farewell. Sometimes the chickadee's cry foretells the death of a friend.

One's laziness (q'a ʌsk'a) is also reified after a fashion. A slothful person is said to "ask his lazy" if he should do something or whether he can sit a little longer. This is shown by tilting the head to the left. A young person who holds the head to the right will be quick to perform tasks.

Strength (ɬʌtsin) comes as a "blessing" to the youth or man who bathes daily in cold water and beats his body with branches. In one myth, a youth's bathing is supervised by Strength, who appears in the form of a large man.[8] He helps the boy to recover the box that contains the lives of his dead townsmen and so restore them to life. In other myths, Strength may be a little man.

Other vital faculties are embodied in or associated with material objects. Thus, the belt which was worn by the woman during war time and which she resumes for eight days after her husband's death, is said to contain his life. It is then put around an old stump, itself a symbol of longevity, in order to prolong the life of his successor, her next husband. Amulets perhaps fall into this category since they embody a person's luck. One highly respected old chief used to say that he had a "box of intelligence," which he opened when people came to ask his advice, but we do not know whether this was metaphorical or whether he owned something similar to the successful hunter's "lucky box" that contained his amulets.

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7 For versions of this story, see John R. Swanton, *Tlingit Myths and Texts* (Bulletin, Bureau of American Ethnology, no. 39, 1909), Tales 32 and 104.

8 *Idem*, Tale 50.

Peculiar feelings or twitchings in various parts of the body are prophetic or revelatory. Thus, to sneeze indicates that you are lying, or that what you hope for will not come true. Most of these signs, however, come only to certain persons. Thus, a famous sea-otter hunter could tell he was going to make a kill from the feeling in his hand; another man knew from the sensation of water running down his hair, or from the buzzing in his right ear (the side on which one carries a bucket) that it would rain. Other body "portents" warn of disaster. According to Swanton,[9] twitching on the right side of the mouth means good luck, on the left side bad luck.

Dreams, of course (or only especially vivid ones?), are prophetic. Catching fish indicates the acquisition of wealth: a valuable fur-bearing animal caught in a trap, or money that shines like the fish's scales. Other dreams foretell sickness and death, as when one dreams of seaweed, since the bereaved may not eat "beach food" during the mourning period. If someone offers you food in a dream, that person is "witching" you. Although attacks have been made on a reputed witch because of such dreams, we do not know whether the "soul" or "spirit" of the witch was supposed to be doing the actual "witching" by means of the dream. Again, some persons, especially shamans, have more significant dreams than ordinary people.

III. THE "SOUL"

All living creatures, human and animal, are animated by souls or spirits. Those of animals are called their "inhabitants" (qwani), xuts-qwani, for example, being the inhabitants of bears (xuts), following an etymological pattern similar to that found in Sitka-qwan, "Sitka-people." The physical body of an animal at times seems to be a covering for the soul or spirit, with which, however, the latter remains closely associated after death, as long as the flesh is "fresh," or even longer. According to myths, animal spirits when at home look like people and live like human beings. On visits to men the animals may also appear as human beings, though the stories do not make clear whether they have transformed their animal bodies or doffed their animal skins. They can hear what people say (but understand only Tlingit), and are aware of human actions and motivations, being ready to punish those who insult them, maltreat their bodies, or are cruel to one of their number. Kindness to an animal may be miraculously rewarded by the qwani. No sharp distinction separates animal from human souls, though the former would appear to be the more powerful. It is not clear whether plants or inanimate things (mountains, rocks, streams, winds, etc.) also have souls comparable to those of men and animals, although they are often said to have an

9 Swanton, *Social Condition*, p. 459.

in-dwelling "spirit" of some kind. Medicinal plants, dangerous places, etc., may be addressed like persons and offered gifts; even manufactured articles, such as canoes, fish traps, guns, and halibut hooks are named, and the latter are spoken to when put into the water. Perhaps it would be safe to say that man, in his spiritual aspect, is not fundamentally different from any other part of nature.

Tlingit notions about the "soul" are difficult to define, partly because they have a multiplicity of terms applicable to the "soul" which are not consistently used, and because there is now some confusion of aboriginal and Christian notions. We have a series of closely related terms[10] designating the ghost, spirit, hallucination, shadow, image, or reincarnation (referring to the resemblance to the ancestor). These forms seem to be compounded from the word ha, "shadow," perhaps related to yà-hà, "to appear to move."[11] The dead may be called s'Age q'awu, "?-people"; there is also a term referring to the mind of the recently deceased that still hovers around the living; and Boas gives the term k'vlɣetlcAn, "hideous," or "ghost."[12] It is extremely unlikely that these words all refer to a single entity, or that they designate entirely separate ones. We have evidence, however, that the Tlingit do have notions of multiple "souls," each associated with a person's several names, and these "souls," as we shall see, are specifically involved in reincarnation.

In addition to his own "soul" or "souls," other spiritual entities are or may be associated with the individual. One of these is the spirit protector which each individual has and to which he can pray in crisis. It is addressed as aɣ k'ina yegi, "my up-in-the-air spirit" (?). There was doubt in the mind of one informant whether or not there was but one spirit to whom all prayed. It or they are now vaguely equated with the Christian God.

The root of the previous expression is the word for the shaman's spirit helper, yek. The latter is obtained from some animal, bird, or fish, which the shaman encounters during his novitiate, and from which he usually cuts the tongue. The strongest yek are derived from certain species, predominantly the land-otter. Whereas the full shaman ideally cuts eight tongues and thus obtains eight helpers, other men, we believe, may obtain lesser power from a single tongue. How the yek is related to the animal's "soul" or qwani has not been fully explained. The yek enters the body of the shaman during a seance, when he falls into a trance and utters its animal cry. He can also animate an image with it, or send it on journeys and thus see what is happening far away. If his yek or "power"

10 For some examples, see Swanton, *Social Condition*, p. 460. We recorded others.

11 Boas, *Grammatical Notes*, pp. 124, 133 f.

12 *Idem*, p. 128.

is overcome by that of another shaman, the "master" of the vanquished yek may die. Upon his death, the yek seems to remain near the grave, ready to come to the nephew or other relative who is destined to become the successor.

Some spiritual entity of the shaman (yek, ghost, unidentified power?) also lurks near his gravehouse or in his box of paraphernalia which is hidden in the woods. Contact with either of these, or even too close an approach, is likely to produce a spirit intrusion in an ordinary person. Such an intrusion is called kucda, literally "land-otter," or 'ʌnɛ̄lsin, "something-inside-hiding." Women are supposed to be particularly vulnerable, and such intrusions are fatal if derived from a shaman of a sib other than that of the patient. Even relatives of the incautious person may be killed. These intrusions are sometimes compared to an immaterial "object," shaped like something in the shaman's outfit that has been handled; it can be seen and magically removed only by another shaman. Or again, it is a tumor-like growth, shaped either like the shaman's paraphernalia or like a small human being, physically removable by a White surgeon, but almost invariably fatal. Another interpretation of 'ʌnɛ̄lsin or kucda is that it is a small, quick-moving insect, which might enter the body if one sat on a rock. This produces nervousness, debility, a wandering pain, or even indigestion if the host eats food distasteful to the intruder, but it may be removed by a shaman or a woman rubbing-doctor. Even larger animals, such as the mink or land-otter, may become 'ʌnɛ̄lsin, but these are likely to prove fatal. Since the same names are given to the intrusion derived from the shaman and to the insect and animal intrusions we do not know what distinctions are made between them.

IV. REINCARNATION

To exceed the ordinary span of life is to "go around cʌngeyi (old people's bay), and come to the place where you started. That goes to show you're over one hundred years old." To die prematurely is to "go only half-way round." These words imply that attainment of unusually great age, when an individual becomes "what White people call 'childish,' " is really to begin a second life, one which does not usually start until one is again reborn as a baby.

The birth of a child always means the return of someone who has died, and the after-life is but the prelude to a new existence. "I was ashes then" is the expression commonly used in referring to a time before one was born. All the dead, we were told, may become reincarnated, no matter what their previous life or how they had died. They may choose the parents to whom they are to be reborn, providing only that the mother be a close relative in their own sib or in a related branch. A person who expects death may tell such a woman that he is

coming back to her as a child, and that she should name her baby after him, possibly requesting that the child be given the food or tobacco which he relishes. He may specifically designate one woman among his kin because of her good character or because her husband is a good provider, and forbid other potential mothers from naming a son for him because they are "no good." A man with two names, and thus a "double" soul or spirit, may in such a manner come back to two different women, each of whom bears a child with one of the deceased's names. The original "spirit" in such a case was said to be "divided in two. . . . It was really the same spirit that came back to each. . . . They were close to each other . . . just like one boy."

Often the old person may indicate some physical peculiarity of his by which he may be recognized in the newborn baby, although such traits are not necessarily what we should consider hereditary or congenital in either individual. Sometimes the dead person appears in a dream to a relative or to his widow, promising to return; or the pregnant woman or another relative may know from a dream in which child he is about to return or has returned. In other cases, the relatives of the baby may wonder whose spirit it has, and look for revealing traits on the basis of which the name should be given.

Sometimes the mother in childbed sees the spirit of the dead person waiting near her, apparently to forestall another soul that is also trying to claim the child. Twins are said to result from such competition. However, they are also said to "have only one life," and if the older dies, the second will die also. It is further recognized that twins recur in the same family line, and it was also suggested that multiple births are more likely if many relatives have been killed in war. "Twins are precious; they are a pleasure to us," was a remark typical of the northwesternmost coastal Tlingit. Jones, however, reports for the Juneau (?) Tlingit that twins were of evil omen and were formerly killed,[13] and this opinion is shared by the interior Tlingit, who believe that the birth of twins means the death of the mother's sib.

The would-be mother may herself take active steps to insure the reincarnation of a beloved sibling, child, or other maternal relative. She places the hand of the dead person against her bare breast, "to make him feel her titty." When the corpse has been buried (formerly cremated), she is led eight times around the grave (or pyre), and walks away, calling the name of the deceased, but not looking back lest the soul be driven away. On the ground she marks a short trail from the grave and urinates at the end of it (opening her womb?). She wears a

13 Livingston F. Jones, *A Study of the Thlingets of Alaska* (New York, etc., 1914), p. 121.

lock of hair from the right side of the deceased's head or a nail paring from his right hand sewn to the waistband of her petticoat; and during pregnancy she keeps beside her bed a tiny basket filled with the food that babies like, to hasten the return of the beloved soul.

"Planned reincarnations," if we may use the expression, may result in pregnancy shortly after the death, or may take place through a child that has already been conceived. Sometimes the sex of the reincarnated individual is changed. Thus, the mother might "lose the boy just at birth" when his "private parts split open" and he becomes a girl. "Many times it happens." As an instance, a little girl was cited who "looks like a boy, so they say she's a little boy." Such a transformed boy is called wvcitc. Although the activities of the expectant father are supposed to influence the sex of the baby, our coastal informants did not agree on what these were or how they acted, and we did not learn if a girl could turn into a boy at birth. According to interior informants, however, both types of change of sex were common, and one old man even announced that he was coming back next time as a girl, because men have to work too hard. Presumably the baby is given a name appropriate to the actual sex.

Even though reincarnation has not been planned or any signs given to indicate which individual has been reborn, people will still say that so-and-so "is still alive. He didn't chose his mother; they just named the boy." And herein probably lies the crux of the matter. When the child is named, usually by the mother or grandmother, "then he knows who he is, what spirit he belongs to. When she announce it, he knows it, and the dead spirit knows it then."

For the possession of the name, or names, when several of the deceased's are given to a living namesake, makes reincarnation "effective." A child is given "as many names as you can get ahold of," and yet somehow each name embodies some essence of its previous holders. In this way, even the man who had specifically stated his intention to be reborn to a particular woman was born both to her and later to the niece he had rejected, simply because the latter gave one of his names to her son. "She had first right to the name" because of her close kinship to the deceased, "and besides, they didn't want to waste the name," since presumably the second name had not already been given to the other child. Eventually (after the death of the first, desired incarnation ?), the second boy came to be known by both names. Again, the same name of a deceased relative may be given to two babies, born more or less at the same time to two different mothers, and the dead is thus "duplicated" in each.

The reincarnated individual is said to remember his previous life. Even as a baby he greets his former wife with joy, and speaks about his earlier existence as

soon as he can talk. Furthermore, his name carries with it the kin usages practiced by or towards the previous holder. Thus, a mother may call a son "uncle" because he is named for her mother's brother, or a man call his son "father" because the baby bears the name of the father's father. The former wife calls her husband's namesake "husband," gives gifts to her "mother-in-law" (the baby's mother), and helps her care for the baby. The father and mother of one man gave presents to the orphaned children of their son's dead namesake, as if they were the true grandparents. In turn, the son of the reincarnated "father" calls the daughter of his father's namesake "sister" and gives her money as a true brother should.

In similar fashion any two living individuals who bear the same name are equated, even though they may belong to different sibs in the same moiety. Such namesakes (dusayi, "his name") greet their other "selves" with particular warmth. In one case the young children of one man were nicknamed for the grown children of his namesake, and this play on names extended even to calling his little daughter's pets by the true name of the child of the other man's grown daughter. In another case, a man in the heat of revenge spared the life of an enemy because the latter bore his father's name.

IV. THE NAME

Names (sa, "name"; ya-sa, "to name, to breathe")[14] are thus an essential part of the self, and every (?) individual bears several. The Tlingit distinguish between the "real" or "ordinary" name, apparently given at birth, the "pet name when he was growing up" and/or a "nickname" which may be acquired at any time, and lastly the "big" or "potlatch" name which is ceremonially conferred by a relative who validates it by making a contribution at a potlatch. A "chief's" name is apparently such a potlatch name assumed by or proclaimed on behalf of the heir at the death potlatch he gives for his predecessor. Many individuals have several names of each kind. A person may inherit several "real" names from different deceased relatives, presumably thus embodying as many reincarnations.

In direct address a kin term is used, one implying the closest possible consanguine relationship that can be traced, even though relationship is "manipulated" by treating namesakes as the same individual and sibmates as true siblings. In ordinary reference a name of any kind may be used as designation. On ceremonial occasions the "big" or "potlatch" name is always employed, and chiefs seem always to be known by their honorific names. Such noble names were like titles, passing from older to younger brother, from mother's brother to sister's son, or from grandfather to his son's son, at the death of the senior. This did

14 Boas, *Grammatical Notes*, p. 138.

not imply reincarnation, although the prestige and any prerogatives of the predecessor were transferred with the name. This practice is still followed if potlatches are given. There are, however, a group of modern children who have received "chief's" names as their "real" names, probably because of the desire to keep such names alive in a shrinking population where potlatching is all but obsolete. In these cases, the children are said to have been named for their illustrious forebears, even though there have been intermediate namesakes with less distinction.

All names except nicknames are felt to belong to a particular sib, and some have even been designated as belonging to a particular "house" or lineage. Names may pass out of one sib into a closely related one, either through planned reincarnation on the part of the original holder as already stated, or because a grandfather in one sib bestows an honorable name on his son's child who may belong to another sib. In this second case, the right to the name is confined to the grandchild so honored, unless the name is a new one coined at the potlatch in question.[15] We do not know whether the name involved in reincarnation is in theory completely transferred to the other sib, but suspect that this often happens. In any case, census records indicate that many names are shared by several sibs of the same moiety, and are duplicated in many different communities.[16]

The Tlingit practice teknonymy, that is, men and women may be called "father-of" or "mother-of so-and-so," usually referring to a favorite child. However, many teknonymous appellations run in sib lines and are inherited, and mean reincarnation as truly as do nonteknonymous names. Small children are commonly named in this fashion. Whereas, as we have seen, any name may pass within the same sib or even within the same moiety, there is a peculiar restriction on the teknonymous name. A man, for example, may have inherited as one of his "real" names the designation "father-of tek" (a son), or "father-of qeł" (a daughter). But tek and qeł belong properly to a particular sib of the opposite moiety, and so his name implies, first: that the man is related through his maternal line to some previous father who actually had a child, tek or qeł; and second: that the ancestral tek or qeł was a relative in the present man's paternal line. The present "father-of tek" cannot, however, have a son tek, "name a child for himself," unless he procreates a son by a wife of the correct complementary sib. In one case, where a man had married into another sib, and was thus bereft of a son who could actualize his teknonymous name, he gave the son's name to a

15 See also Swanton, *Social Condition*, p. 423.

16 The Tlingit are apt to cite such shared names as evidence of common origin of the sibs possessing them.

dog.[17] However, the reincarnation of this man, who belonged to the correct combination of lines, and who had married a woman of the right sib, revived the name, tek, in his son. We do not know of any clear case suggesting that a "mother-of so-and-so" might be similarly deprived of fulfilling her name through a child.

Our coastal informants did not acknowledge, as did the interior Tlingit, that a man and a woman who had inherited complementary teknonymous names, or who were the reincarnations of previous spouses, should marry each other. Yet the emphasis on taking a spouse from the father's house or sib suggests that the desirability of these particular marital combinations may formerly have been stressed.

Many names, perhaps all, have or once had a meaning. Honorific names, in particular, are words or phrases referring to sib totems, to their representations as crests, to episodes in sib "history," or to graves and houses paid for at the potlatches in which such names were given. Such names are, in a sense, glorified nicknames, and the same nickname quality pertains to ordinary inherited names. Some of these are "foreign woman," "big man," "one eye," "stingy woman," etc. Ordinary names may refer to sib totems, such as "tailless Raven," "bear cub," etc. Many "real" names follow a pattern similar to that of teknonymy, as in "daughter-of," "younger sibling-of," "father's sister-of," or "possessor-of" (?), referring to persons, animals, plants, objects, or abstract qualities. Pet names or nicknames are clearly coined with reference to personal peculiarities ("stinker," flop-eared "spaniel"), activities ("counts-the-measure"), or even a characteristic remark ("Was-it-I?"); or they may be teknonymous in form. Thus, a man may be called "father-of" something of which he is especially fond or habitually associated, such as his favorite hunting grounds or a peculiar canoe that he has built, and he may even assume such a name himself. Similarly, several White fur traders have been called "father-of-mink." The "real" name of one person may be applied to another as a nickname, regardless of moiety affiliations, because of resemblance between them in appearance or personality. Some nicknames are said to have been inherited and have thus become "real" names.

It is possible that all names were originally coined, either as honorable, amusing, familiar, or derogatory characterizations of a person. Or, because the individual is so closely identified with his sib and its origins, totems and crests, some names may have been coined to refer to these, and so express in analogous fashion

17 This explains the reported custom of naming a man for his dog. Actually, the reverse is the case.

this mythical-social aspect of the self. A person's names thus not only embody or symbolize his "soul" or "souls"; they express his position in society as defined by the intersecting coördinates of maternal and paternal lines and of rank; they indicate his relationship to those sectors of the "natural" world associated with sib mythology; and lastly, they portray his own individual personality traits.

VI. MAGICAL TRANSFORMATIONS

A person does not always retain his human form or qualities. The witch, for example, has the power to turn into an animal or bird, and thereby to travel through the water or fly through the air. He may even assume an indescribable form that is all but weightless, or may shrink to enter a grave through a tiny hole. The porpoise seems to be a guise favored by witches, and if a porpoise approaches the village beach, this is taken as a sign that sickness threatens the inhabitants. Any wild animal, however, that approaches or enters human habitation in an unnatural fashion is similarly feared. Witches have been shot to death in animal form one day, to die in their human form the next. In whatever shape the witch may assume, he may be detected by a dog or, of course, by a shaman. Furthermore, witches may, by touching someone with a dog skin or a human bone, turn that person into a witch, for the distinction between the witch and the bewitched is not clearly made. Witchcraft may be associated with certain families, and with delinquency of a serious kind (lying, stealing, and incest). Witchcraft is traditionally practiced against a close relative because of jealousy, but while punishment may be administered by the relatives, the witch is detected and forced to undo his spells by a shaman of another sib.

A different sort of transformation happens to those who are lost in the water or in the woods. They may be stolen by land-otters and themselves become land-otter-men, assuming the form of the animal. It is difficult to know what distinction, if any, is made between the animal (kucda) and the transformed person (kucda-q'a). It is the latter apparently, that steals other human beings, sometimes stupefying them with its animal whistle, numbing or paralyzing them with the patter of its paws, or appearing in the guise of a relative to lure away the unwary. These pseudo-relatives may be detected by biting them, for their skin wriggles in a revealing fashion, or by biting their canoes, which also quiver because they are really live fish (skates). Or, one may offer them tobacco, which as animals they dislike. Dogs are never fooled. Protection is afforded by wearing something made of iron. One may drive away the land-otter-men by sprinkling them with urine. Children who have been captured may escape if they defecate, and they may be

inoculated against future kidnaping by application of urine to cuts in their palms, for the land-otters hate the smell of human excretion. A shaman's spirits may find and protect lost people and guide the search party to their rescue.

When captured, the person believes that he is being taken to his own home, or at least to a human village, but in reality the land-otter-people are dragging him through streams, swamps, and underground burrows. The captive may marry among the land-otter-people and beget non-human children. (In one case, the offspring were said to have been minks). Sometimes, he may find among the land-otter-men a relative who had been stolen long ago. According to one story, a captured man was helped to escape by his transformed paternal aunt, with the assistance of his land-otter brothers-in-law. Having lived on land-otter food (cod-fish bones), his mouth was horribly disfigured, and he refused the most delicious human fare. His body had already begun to be covered with fur, his hands and feet were lacerated from his unnatural journey, and he was as wild as an animal. Eventually, through the ministrations of several shamans, he recovered his human appetite and normal appearance. Those who drown or who have presumably been held captive too long never regain their human form.

A similar patterning characterizes visits by the living to the land of the dead (see below), or visits to and marriages to other animals (bears, deer, killerwhales, devilfish, salmon, halibut, Thunderbirds, etc.). Here the animals, or rather their qwani, appear to the man or woman as human beings, while the person assumes completely or partially the form of his captors and may bear animal children. Rescue, if accomplished, is usually credited both to the powers of a shaman and to the pity of an animal being, often a transformed relative, but it is rendered difficult or impossible if the person has eaten the alien food or remained too long in the animal's home. Lengthy ritual observances may be required to tame him and restore him to full human status. Sometimes the person acquires shamanistic or other magical powers as a result of such associations. Most of the stories describing such adventures refer to a time in the distant past and justify sib crests. The reasons why people were taken by animals is usually because they had offended an animal-qwani, and the stories are therefore told to teach children proper respect for animals as well as to instruct them in sib history. Or, the animals had rescued forsaken people, taking pity upon those who had been abused by their relatives. Some persons apparently turned into animals simply because they had been wicked. In the earliest time, as conceived by the Tlingit, transformations were common, and there was apparently no real line between animal and human. Thus, Raven appears and reappears in bird or in human shape; his uncle's wife is a beautiful woman but also a bird, the hair in her armpits being valuable flicker

feathers; Raven and his mother escape the flood by donning duck skins and so becoming ducks. Such transformations, however, belong really to myth and are not believed in the way that stories about animal-qwani are "believed." Land-otters, on the other hand, occupy a special position in the animal world, for they are always (?) malevolent, the most powerful yek are obtained from them, and transformation into land-otter-people still occurs.

VII. DEATH AND THE AFTER-LIFE

With death occurs a final transformation of the individual self. The soul leaves the body with the final breath, when the door should be opened to facilitate its departure. The soul or "ghost" lingers near the corpse for some time, probably for the eight days of ritual mourning, although the body is traditionally buried or cremated on the fourth day. During this time the bereaved (close sibmates, offspring, and widowed spouse) must be careful to observe taboos and to carry out magical "exercises," lest their lives be endangered, for the ghost may take his relatives with him, either because of their failure to mourn properly, or because of excessive demonstrations of grief. Washing the widow's hair is likened to "washing away the thoughts of death." In the past, cutting or singeing the hair of the bereaved likewise served to remove the contamination of dangerous memories and also showed respect for the dead.

Although the spirit has left the body, the corpse still retains part of the essence of the self, and the ghost still has quasi-corporeal qualities. The Tlingit no longer feel that cremation is necessary to keep the ghost warm in the after-life,[18] nor does burial underground adversely affect reincarnation. It does, however, destroy (or only impede?) the likelihood of a shaman's power passing to a successor, for formerly the shaman's corpse was kept above-ground. The ghost still has need of food and drink, and retains his earthly relish for tobacco and liquor. For this reason, the relatives entertain the gonɛtkanayi at a funeral smoking party and at a funeral feast, where what is consumed is thought to be for the benefit of the deceased, indeed, for all the dead of the host sib.[19] Dishes of food are set into the edge of the fire, but not in the flames, lest the dead burn his hands. These dishes are usually retrieved by the gonɛtkanayi, who announce that they take them for the benefit of their own previously deceased relatives. If the individual has drowned, food and tobacco are put into the water. Similar communions with the

18 See Swanton, *Social Condition*, p. 430.

19 See Catharine McClellan, *The Interrelations of Social Structure with Northern Tlingit Ceremonialism* (Southwestern Journal of Anthropology, vol. 10, pp. 75-96, 1954) for the roles of kin groups in Tlingit ceremonialism.

dead take place at potlatches, and on Memorial Day when the relatives visit the graves. In one instance, cigarettes were deposited on the beach when land-otters were heard whistling near the house where a potlatch was being held, since they were supposed to be two youths who had recently drowned. (Note the inconsistency with the belief that land-otter-men encountered in the wilds will refuse tobacco). In former times, some people put food daily into the gravehouse that held the ashes of a beloved relative, or regularly fed the dead at the fireplace. A certain kind of crackling of the fire means that the dead are asking for food. Involuntary sighs or dry sobs mean that a ghost is touching the living and trying to talk.

Knowledge of the life after death and of the needs and fate of the soul are said to have been learned from those who died and became reincarnated long ago, and from others who visited the land of the dead when apparently unconscious. Such a report was given by a man who finally died in 1897, but who as a boy had temporarily "died" and returned to life.

After death, the ghost journeys through tangled woods to the banks of a large river where there is bad weather. To protect him from the thorny bushes in his path, the corpse was formerly dressed in heavy clothes, boots, and mittens. According to the boy who had been "dead," he saw people across the river but they could not hear his cries. Finally when he yawned, they heard him and fetched him in a boat. (This is a variation of the usual theme of reversal exhibited by the spirit world.) He found the dead seated in four circles inside a big house, those longest deceased in the rear. His father's sister was sitting near the door; she cautioned him not to eat anything or he would never escape. When food appeared beside the fire, the gift of the living, the ghosts all scrambled for it. In the confusion, the woman took the boy back across the river, instructing him to run home fast, not to think of the dead, and that he must get home before the raven (synonymous with mythical Raven) called at dawn. (Similar instructions are also given to those who escape from land-otter-people or from animal-qwani.)

According to one informant, the ghost cannot cross the river unless he has lived a blameless life. Instead, he finds shelter from the storm in a dry place by the bank, and having made his choice, he is powerless to move for what seems to him eight to ten days, but which in reality are as many months. Each month, the river bank slides down. "Then they take you away, and you find yourself born again." (This is explained as the period in the mother's womb, when the foetus is supposed to shift position each month.) The soul is reborn again seven times, but it was not made clear whether it might then reach the beautiful country across the river, no matter what had been his earthly deeds, or whether

the soul of the wicked was lost for good. This conception is inconsistent with the notion stated by another informant that all the dead may be reincarnated.

This after-life, however, is only for those who die of disease or old age. Those who die by violence at their own hands or at those of another go to a land above, k'iwa'a. Here the soul enters by a hole, where a watchman reports his arrival and determines his fate. Sometimes someone who was not killed wanders there by mistake and is sent down again. A person who has been slain for his misdeeds, however, is sent to Dog Heaven (ketl k'iwa'a), an undefined abode, now equated with Hell.[20] Those who remain in Heaven enjoy a happy existence, playing shinny on the open grass. They become the northern lights (gɪs'vq') and are called k'iwa q'awu, "people above." They may appear after their funeral to greet their friends; on other occasions they prophesy war or that a relative will die by violence. The howling of a dog may drive away the lights and so avert the threatened disaster.

Those who drown or disappear in the woods remain wandering on this earth as land-otter-people.

Although we were told that the dead may be reincarnated again as babies, this seems never to be a complete return to life of all that made up the former self. There apparently remains a ghostly counterpart to be fed at potlatches, a dangerous presence still associated with the remains of the corpse, or something that may still be embodied in the form of the land-otter or in the northern lights. Moreover, the reincarnated person never duplicates exactly his former self; he has lost part of the previous personality or personalities, and he has added his own qualities and characteristics. Furthermore, if the dead were really and completely alive in their namesakes, there would hardly be that ceremonial weeping for all the dead of the sib which takes place not only at potlatches but whenever someone sings the old songs or thinks about the departed.

The individual for the Tlingit is thus not a unitary self, distinct from all others, but is both compounded of and linked to other selves: his ancestors, his descendants, and even his contemporaries. His self not only "participates" to some extent in their selves, as Lévy-Bruhl might have expressed it, but also, to varying degrees, "participates" in animal spirits and in other supernatural beings, and even in portions of the inanimate world.

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20 Swanton's Wrangell informant called this "Raven's Home" (*Social Condition*, p. 461).

TEXT-MUSIC RELATIONSHIPS IN ARAPAHO SONGS

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THE RELATIONSHIP between song texts and music in primitive cultures is one of the less known fields within comparative musicology. Few musical styles have been studied with regard to the linguistic aspects of the songs. It is the purpose of this paper to survey this problem in the music of the Arapaho.[1] We first list briefly the main characteristics of the Arapaho musical style. It is, as far as is known, entirely monophonic and primarily vocal, the songs being accompanied by drums and rattles. Rather large intervals and large melodic range predominate. Melodic movement is almost exclusively downward, and the singing is characterized by a great deal of vocal tension and rhythmic pulsation on the longer notes. The form of the songs may be called strophic; one long, descending melodic line which flattens out at the end is repeated several times; it, in turn, consists of several phrases each of which also descends, but each of which begins somewhat lower than the previous one, making a somewhat terrace-shaped contour.

According to their texts, the Arapaho songs can be divided into (a) those which have only meaningless syllables, and (b) those which have meaningful texts. The latter group is in the minority, if the approximately one hundred twenty songs which are known can be considered representative. To be sure, it is known that some songs may be sung both with a meaningful text and entirely with meaningless syllables.

We discuss first the larger category, that of songs with only meaningless syllables. This category is again divided, according to the types of syllables used, into two groups. The first includes most of the song types; it is definitely the older and includes the songs of all functions except Peyote.

The songs presently under consideration are characterized by meaningless syllables which begin with *h*, *w*, or *y*, and which end in a vowel or with *w* or *y*. Typical syllables are *hey*, *hay*, *ya*, *how*, *wu*, and similar ones. An attempt was made to determine if any set patterns are used in determining the position of the syllables, or their order, within a song. Little positive information could be gained, however. Generally speaking, the syllables appear to be placed in a song in rather unrestricted order. On the other hand, however, it was found that singers used almost

1 This study is based on the transcription and analysis of approximately one hundred Arapaho songs deposited at Indiana University, and recorded by Zdenek Salzmann and Bruno Nettl, in 1948 and 1952.

exactly the same syllables in different repetitions of a song. This was found true when comparing different repetitions within the same rendition, as well as when comparing different versions of the same song recorded several days apart. Occasionally a syllable was changed, but easily ninety-eight percent remained constant. Any changes were likely to involve semi-vowels (e.g. *y* to *w*, or *h* to *y*). If a vowel was changed it was usually to one in close articulatory position. Great stability or fixity, then, is evident in these meaningless syllables, but evidently few patterns exist in their order. Two exceptions to this last statement are, however, noteworthy. First, there is a tendency for high tones to be sung on syllables with front vowels (*a, e, i*) while lower tones are more apt to be sung on back vowels (*o, u*). This may have a physiological basis, since we know it is easier to sing high tones with front vowels and low tones with back vowels. The large melodic range of the songs may make such accommodations necessary, especially at the extremes of the range.

At the end of a song or a strophe we find another tendency superimposed upon the one just described. The last five or six syllables (sometimes less) consist of alterations of front with back vowels. More specifically, we may group the vowels into three classes, front (*i, e*), central (*a*), and back (*o, u*). The alternation takes place between the vowels of at least two of these groups. Examples of song final groups of syllables follow:

how we ho he
wu e wu e
hey hey ow ey
ey ow ey.

These formulae usually coincide with the final flattening out of the melody and are likely to be sung on the same pitch.

The other kind of meaningless syllables are found in songs of the Peyote ceremony, which have a distinctive musical style, described by McAllester,[2] which cuts across musical style boundaries and which usually is easily distinguished from that of the other songs of its various users. Most of the Arapaho Peyote songs have only meaningless syllables, in contrast with the Peyote songs of some other tribes. The meaningless syllables of the Peyote songs are differentiated from those of the other Arapaho songs by the introduction of new consonants, *n, x,* and *c,* as well as by the particular way in which they are organized into patterns. Groups of syllables form what we might call "Peyote words," which are repeated throughout a song. It would be easy to mistake them for meaningful words, but they appear to have no

2 David P. McAllister, *Peyote Music* (Viking Fund Publications in Anthropology, no. 13, New York, 1949).

meaning in any of the languages in which they have been studied. The peculiar structure of the Peyote meaningless texts and their relationship to the musical structure of the songs is described by Nettl.[3]

We now approach the problem of the treatment of meaningful texts in Arapaho music. The conclusions which are drawn from this study are necessarily preliminary, since only thirteen songs with meaningful texts were available to the writer in reliable transcription. The comparisons between music and language in this case involve only formal considerations and are not concerned with content. It should be stated that content relationships, such as tone-painting and musical representation, were not found and, if any, could be demonstrated only with the greatest difficulty. This tendency in Arapaho music is in line with most primitive music as we know it.

A peculiar difference in musical structure is found between most songs with meaningful texts and most of those without. The latter group is characterized by the following form, found in a great many of them. It is binary, consisting of a short section, sometimes repeated, followed by a long section which is always repeated. It could be schematized as A B^1 B^2. Songs with meaningful texts usually consist of two sections, which are sometimes preceded by another shorter one. The introductory section and the first long section are sung with meaningless syllables. In the second main section is found the meaningful text. This is usually not long enough to fill out the music and is sometimes preceded and always followed by meaningless syllables. Sometimes meaningless syllables are inserted between some of the words, sometimes even within the words. This type of form and text structure could be schematized:

Music:	A	B	C[b]	
Text:	meaningless	meaningless	meaningless	*meaningful* meaningless

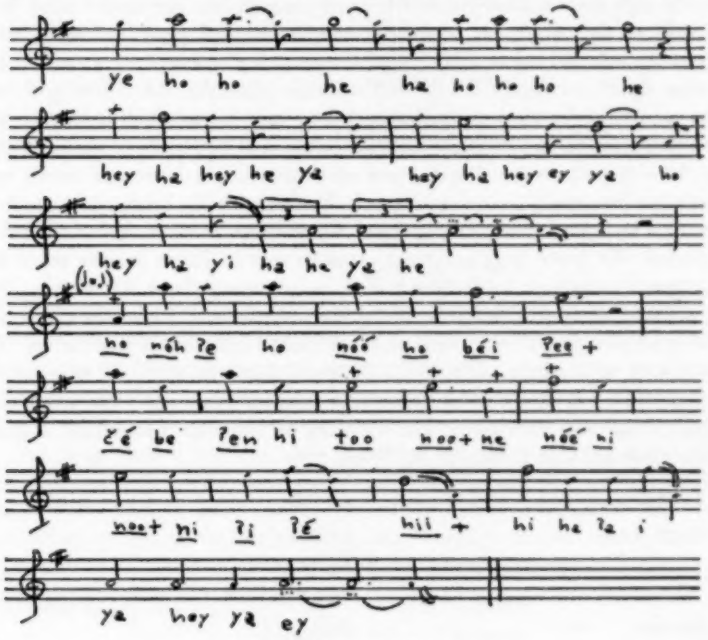
The section which houses the meaningful text is different from its predecessor, but it has the same melodic contour, usually the same pitches for phrase beginnings and endings. The greatest difference is in the rhythmic structure.

The Skybird Song (see illustration) is indicative of a slightly different form type. It consists of two parts, the first containing meaningless syllables, the second containing the meaningful text, which is underlined. The last line is again meaningless since the meaningful text is too short for the music. If we examine the melody more closely we see that corresponding sections of the two main parts have dissimilar rhythm but similar melodic contour. The second section could be de-

3 *Observations on Meaningless Peyote Song Texts* (Journal of American Folk-Lore, vol. 66, pp. 161-164, 1952).

scribed as a variation, rather than a variant repetition, of the first, and the entire form is represented by the letters A B^a.

An even better opportunity to study this phenomenon was offered by a war song which was recorded twice by the same singer, once without and once with



Arapaho Skybird Song

words. The meaningless version had the form A B^1 B^2, but the version with words, which were found in the last section, had the form A B C^b. Again, the rhythm changed most, while the melodic contour remained the same. Rhythm, which was comparatively simple during the meaningless part, became more complex when words were added.

We see, then, that a meaningful text tends to change a melody when introduced. In order to determine what changes take place and the process, the relationship between supersegmental phonemes in the text and analogous musical features was studied.

Arapaho is a tone language with high and low level tone, the high tone being accompanied by stress.[4] Length is also phonemic (for the purposes of this paper), although it is represented by double vowels in the transcriptions. In the tabulations that follow, a double vowel is considered high even if only one of the vowels is actually high, since ordinarily a double vowel occupies only one musical note. It is the task of the subsequent section to compare musical pitch and stress with phonemic pitch and stress, and musical length with phonemic length, and to see to what significant degree, if any, they coincide. Musically, the following definitions are useful for these comparisons. A long tone is one which is longer than both the preceding and following tones, or which is as long as its preceding neighbor if the latter is longer than the tone which precedes it. A stressed tone is one which is in potentially stressed position. In European music, for example, the first tone of a measure is potentially stressed. In primitive music a similar method is employed. We know from numerous examples that in Plains Indians music the first tone of a rhythmic subdivision is likely to be stressed. From this we infer that every first tone of every subdivision is potentially stressed. Definition of musical pitch contrast is found below, with a more elaborate discussion of that feature, and comparison to linguistic pitch. With these definitions in mind, we examine the Skybird Song[5] in regard to correspondence between music stress and length and linguistic high tone and length. The following list expresses the findings, in terms of the tones and their accompanying vowels.

Tones		*Vowels*	
Long	13	long	8
		high	6
		long and high	6
Stressed	10	long	5
		high	6
		long and high	3
		short and low	1
Long and stressed	8	long	5
		high	6
		long and high	3

4 The tonemic system of Arapaho as mentioned in this paper was analyzed by this writer and Zdenek Salzmann, 1952, with the help of informant William Shakespeare. Detailed description of the system by Salzmann is forthcoming.

5 Sung by Mr Grasshopper, 1948; the text verified by William Shakespeare. Underlined portions in the text indicate meaningful portions. Stress marks indicate phonemic high tone. Half bar-lines indicate minor rhythmic subdivisions.

This shows that most long or stressed tones are accompanied by long or high vowels. The next list takes the vowels as the point of departure for the same Skybird Song.

Vowels		*Tones*	
Long	8	long	8
		stressed	5
		long and stressed	5
High	6	long	6
		stressed	5
		long and stressed	5
Long and high	3	long	3
		stressed	3
		long and stressed	3

All long vowels, and all vowels both long and high, as well as all high vowels with one exception, coincide with corresponding musical features. It should be added that, of the total Arapaho material, approximately 40% of the tones are stressed, 35% long; about 35% of the vowels are long, the same number high, and about 20% both long and high. These facts show the above correlations to be significant.

All songs do not, however, show a positive correlation. One song has about one-half of its long vowels sung on long and stressed tones, while none of the high syllables are found on stressed tones. Most of the Arapaho songs show characteristics similar to those of the Skybird Song but to a somewhat less intense degree. A tabulation of thirteen Arapaho songs yields the following results:

Vowels	*Tones*		
	Long	*Stressed*	*Neither*
Long	60%	70%	26%
High	53%	66%	26%
Long and high	67%	80%	11%
Rate expected if the vowels were distributed at random	35%	40%	50%

The correlations for the long vowels are slightly better than for high vowels, but the vowels both long and high show the greatest degree. The latter, then, have the best chance of being sung on a long or stressed tone. It is possible to conclude that, in general, musical and linguistic stress and length coincide in Arapaho music. At

points at which these elements do not coincide, it is often possible to blame a strong rhythmic or melodic progression.

The element of pitch in music, not included in the preceding because of a difference in the method employed in dealing with it, is next under consideration. Two tones are necessary to show contrast in pitch; thus, each point at which the melody rose or fell was tabulated to see whether analogous linguistic tendencies took place. Because of the prevailing downward trend of Arapaho music, the word (marked by a plus juncture) was taken as the basic unit within which contrasts were tabulated. Since linguistic pitch serves only as a contrastive factor within junctures, musical contrast contingent upon it would be expected only within the same boundaries. In the Skybird Song, the melody fell in six places and rose in four on meaningful syllables. All six of the downward melodic steps coincided with a movement from a high vowel to a low one. All four of the upward movements coincided with progression from a low to a high vowel.

Similar correlations, although not as high, were found in the other songs. The following table expresses the findings.

Tones	*Vowels*	
high-low	high-low	75%
	low-low	10%
	low-high	10%
	meaningless-low	4%
low-high	low-high	72%
	high-high	5%
	high-low	18%
	low-meaningless	5%

The correlation between musical high pitch and linguistic high tone is high, although there are individual differences between the various songs. This has been the case also in the considerations of stress and length. Music is apparently made to accommodate the linguistic elements, as we have seen when meaningful texts are added to a previously meaningless song. On the other hand, linguistic features sometimes accommodate musical trends by the insertion of meaningless syllables in order to make the meaningful syllables coincide with tones corresponding in pitch and length. Although there are numerous exceptions, there is a definite tendency to have language and music features coincide.

Little of a conclusive nature can be said about the songs which diverge from the general patterns. Some speculation could hint at the fact that songs occa-

sionally have their texts changed. Also we know that a great many persons have part in the creative activity among the Arapaho, and that thus individual differences might be more likely to arise. An answer can be supplied only if the relationship between music and text is studied in more musical styles, both primitive and cultivated, the world over.

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THE EVOLUTIONARY THEORY OF V. GORDON CHILDE[1]

HENRY ORENSTEIN

BOAS AND HIS STUDENTS were credited, earlier in the present century, with dethroning the ideas of cultural evolution and progress from the dominant position in anthropology which they enjoyed in the latter half of the preceding century. After a period of disgrace, however, these ideas have returned to prominence and have recently acquired considerable acceptance and support among anthropologists. It appears, on looking back at the earlier dispute about the matter, that the criticisms which Boas and his associates levelled at evolutionist theory were neither thorough enough nor constructive enough to convince a later generation of students that the theory was untenable. Kenneth Bock remarks, with reference to one of the more articulate of the present day evolutionists, "The fact that White's position has not received the summary refutation that might have been expected for a completely defunct and disproved theory testifies that he raises issues that have not been satisfactorily explored and resolved,"[2] and this observation applies with equal force to many other contemporary synthesizers.

Of all the present day evolutionists, Vere Gordon Childe is probably the most sophisticated, the most empirical, and among the most insistent. Furthermore, he is an outstanding prehistorian, and, as such, controls unusually well the archaeological data of long-range cultural history. If there is any value in evolutionary theory, any evidence for the idea of progress, then it should be apparent in his writings. Primarily this paper is an attempt to analyze Childe's use of the concepts of evolution and progress to see to what degree they are dependent on his data and to what degree he has simply imposed them on his material. The beliefs of a few other evolutionists will also be touched upon, but only lightly and usually parenthetically.

Childe's ideas have changed from time to time as those of any productive scholar presumably would, but I shall ignore these changes and any seeming inconsistencies which may result with the intention of concentrating on the evolutionary ideas as such, rather than chronicling Childe's personal intellectual history. The evolutionary ideas found in Childe's work are also found in the writings of other

1 I am indebted very much to John H. Rowe for his many constructive suggestions on both theoretical and stylistic matters in the preparation of this paper.

2 Kenneth E. Bock, *Evolution and Historical Process* (American Anthropologist, vol. 54, pp. 486-495, 1952), p. 486.

evolutionists, though often somewhat differently presented, and this paper is an evaluation of ideas, not people. Similarly, no discussion of Childe's notable contributions to prehistoric archaeology and the detailed interpretation of archaeological evidence is relevant here, although this work is at least as important a part of his contribution to anthropology as his theoretical formulations are.

Prehistorians have traditionally classified the archaeological cultures they recover into ages or stages, conceived, since the nineteenth century beginnings of the discipline, as an evolutionary sequence of progressive phases through which man has passed in his "ascent to civilization." Childe follows this practice, incorporating in different works earlier schemes taken from the nineteenth century evolutionists. Thus, he has suggested reviving the Three-Age system of Thomsen: Stone, Bronze, and Iron ages,[3] as well as the seven fold system put forward by Morgan.[4] He also uses the modified and expanded form of the Thomsen system generally current among prehistorians, but with some alterations of his own. He takes the Palaeolithic, Neolithic, Bronze Age, and Early Iron Age of this scheme, appends to it a Feudal period and a phase of bourgeois capitalism, and leaves out the Mesolithic.[5]

These categories are not meant to be a system of classification of "history as actuality"; they are put forward as "generalized history." White describes this evolutionist argument:

> Of course, a law of cultural evolution would describe no actual series of events any more than the law of Newton describes any particular falling body. But infinite variety of particulars does not preclude universals. How quaint then to expect a scientific law, a statement of the universal to describe this and that particular.[6]

Childe appears to agree with him on this point:

> White has demonstrated in detail that Tylor is studying the evolution of religion, not the history of any given religion. . . . The same is true of archaeologists. De Mortillet's classification does not purport to set forth the history of Technology in France or anywhere else, but the development of Technology in the abstract.[7]

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3 Vere Gordon Childe, *Archaeological Ages as Technological Stages* (Huxley Memorial Lecture, Royal Anthropological Institute of Great Britain and Ireland, London, 1944), p.1.

4 V. Gordon Childe, *Archaeology and Anthropology* (Southwestern Journal of Anthropology, vol. 2, pp. 243-251, 1946), p. 251.

5 V. Gordon Childe, *What Happened in History* (New York: Penguin Books, 1946), pp. 17-20. His displeasure with the Mesolithic category may be due in part to its "unprogressive" features.

6 Leslie A. White, *The Science of Culture* (New York: Farrar, Strauss, 1949), p. 408.

7 Childe, *Archaeology and Anthropology*, p. 245.

Both authors speak as if this distinction answers the objections by critics of evolution that evolutionary theory does not fit the facts of cultural histories. But the anti-evolutionists are not answered. Abstractions are made from particulars. If progress is a "scientific law," if it actually describes historical developments "in the abstract," then it must have *some* relation to the events of history and prehistory. Childe repeatedly refers to discrete historical phenomena in expounding the theory of progress. But the question is whether the particulars presented actually do support the generalization; and whether so many facts have been ignored that the "statement of the universal" subsumes only a very few exceptional cases. Proponents of this type of theory must point to some body of data, some area of historical reality which can serve as convincing evidence for it or accept the charge that it is an *a priori* construct, attractive chiefly because it puts our own culture at the top of the pyramid.

In adducing empirical evidence in support of their theories, evolutionists often deal with different units of study. They sometimes speak of evolution as obtaining in culture as a whole, i.e., their approach is what Steward has called "Universal Evolutionism."[8] If the sequence of stages is meant to apply to the totality of culture, then its empirical support must be found in this unit, and it can be applicable to this unit only.

However, in other contexts we find evolutionists referring not to the totality of culture but to the development of particular cultures. When the sequence is meant to be applicable to all cultures, we may call the theories "Unilinear Evolutionism." Such schemes, if they are to be valid for particular culture-histories, must be derived from a comparison of the historical developments of a sizeable sample of the world's cultures. On the other hand, if an evolutionary scheme refers to a limited class of cultures, then the data need only refer to a convincing sample of the class in question. In such cases we may apply Steward's term "Multilinear Evolutionism."

Strange to say, one can discern in the writings of Childe suggestions of each of the three types of evolutionism. As with so many evolutionists, he speaks inconsistently of one type and then the other without distinguishing between them. Each of these three types, as Childe employs them, includes some notion of the idea of progress, though the idea is much less noticeable where he practices multilinear evolutionism. We shall discuss each in turn.

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8 Julian H. Steward, "Evolution and Progress" (in A. L. Kroeber, ed., *Anthropology Today*, pp. 313-326, Chicago: University of Chicago Press, 1953), p. 315. The body of this paper was written before reading Steward's article on the subject. We arrived at the same classification of evolutionism as Steward and will use his terms.

At times explicitly and more often implicitly, Childe refers to culture as a whole for evidence for his theory of progressive stages. Sometimes he contends that cultures are not isolable. He speaks of the "illusion . . . of a multiplicity of 'civilizations,' any of which can be isolated from forerunners and contemporaries and still continue to behave as a living organism."[9] His position, indeed, emphasizes diffusion.

> The discoveries and inventions implicit in metal working are so abstruse and complex that independent origin at several points . . . is excluded as fantastically improbable; knowledge of the essential techniques in the Old World have been diffused from some centre.[10]

All cultures, he insists, are interdependent parts composing a single whole—Culture.

> Even a comparative sociology aiming at the establishment of general rules and a general scheme recurrent in many "instances" the differences between which can be ignored . . . can make little headway. On the one hand the number of observed and observable instances is very limited; on the other hand it is questionable how far any human society is really comparable to any distinct corpse and not rather to some organ or member of one body.[11]

There seems little question that progress is thought of as occurring in culture as a whole. Each step may be taken by any one of the societies on earth; the invention can then be diffused to another society which can, in turn, take the next step. Thus, first labeling the traditional three ages as simply stages in the development of cultures, as having no reference to particular times; he goes on:

> If the whole long process disclosed in the archeological and literary records be surveyed, a single directional trend is most obvious in the economic sphere *in the methods whereby the most progressive societies secure a livlihood*. In this domain it will be possible to recognize radical and indeed revolutionary innovations. . . . These revolutions can . . . be used to mark off phases or stages in the historical process. . . .[12]

With our purposes in mind, it would be wise to neglect the vagaries and moral connotations of the term "progress." We may then agree that something like this process has occurred in the history of technology—if the unit of study is culture considered as a totality. Inventions occur in the course of specific histories and

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9 Vere Gordon Childe, *The History of Civilization* (Antiquity, vol. 15, pp. 1-14, 1941), p. 3.

10 Vere Gordon Childe, *The Bronze Age* (Cambridge: University Press, 1930), p. 10.

11 Vere Gordon Childe, *History* (London: Cobbett Press, 1947), pp. 2-3.

12 Childe, *What Happened in History*, p. 17: emphasis mine. For a similar statement see Childe, *Archaeological Ages as Technological Stages*, p. 1.

diffuse to different cultures taking part in the development. Invention and diffusion are concrete phenomena; and the over-all direction in technology *has* been toward greater complexity and efficiency. One could hardly deny this. But the important methodological decision is what is to be done with the general proposition. If it stimulates inquiry into the determinants of technological invention and diffusion, then the concept of progress in technology may be said to serve as a springboard for scientific historical research. It may be said to compose one problem-center about which numerous specific historical investigations might cluster.[13] From this perspective we estimate its value as greater in proportion as the investigations yield pertinent conclusions. Childe does attempt to use the concept of progress in this way, and we shall review his conclusions shortly.

But, on the other hand, the *definition* of "progress" could be understood by some theorists as one *end* of research. And Childe appears to accept this position, too. For example, in advocating the Comparative Method for ethnology he says that "this method offers the brightest prospect for reaching general laws indicative of the direction of historic progress."[14] And again:

> One [of the functions of archaeology and history] is surely to define progress. To ask "have we progressed" is of course, meaningless—the question can only be answered in the affirmative. It is for history to say what this progress has consisted in and to provide standards for determining it.[15]

If this is one of the goals of anthropology, if we are prone to stop when such information is gathered and ordered, then our aspirations are indeed meager for the data of history. The "law of progress" when considered as an end in itself is little more than a cultural conceit, an ethnocentric rationalization.

Here we come to the nature of such schemes. The "less progressive" societies of our day are as much a part of the totality of culture as is Euroamerican culture. Each society has changed, each in its own way. Certain changes which have occurred in the history and prehistory of mankind as a whole can be considered as steps toward the present condition of each and every culture on earth. This must be granted if one admits that all cultures have histories. If cultures have changed in some respects, then if each society were interested, it could find a "trend" extending from the beginning of man's history—granted that it were known to them—to their present state. For, given the entire life-history of the whole of man-

13 This point has been well made by Melville Jacobs (*Further Comments on Evolutionism in Cultural Anthropology*, American Anthropologist, vol. 50, pp. 564-568, 1948, p. 565).

14 Childe, *Archaeology and Anthropology*, p. 251.

15 Vere Gordon Childe, *Changing Methods and Aims in Prehistory. Presidential Address for 1935* (Proceedings, Prehistoric Society, n.s., vol. 1, pp. 1-15, Cambridge), p. 11.

kind, it seems likely that each culture can have its own criteria for progress and its own evolution, and can place itself always at the pinnacle of the cultures on earth—if it wishes. Societies interested in cycles would select facets of culture which would give them cyclical narratives. But if the interest is in "progress," then a simple-to-complex development is the outcome; with appropriate definitions of "simple" and "complex." The sequence need only pass from what is most unlike their own culture, through those that are similar to it, up to the apex, whether Hopi, Hottentot, or Hollywood.

But, it might be said that from such work one can predict an inexorable future—a condition toward which man is drawn "against his will."[16] A discipline whose purpose was this would be quite peculiar, indeed. Like astrology and palmistry it could amuse a fairly large following; but it would advance man's knowledge of the world and his control over it very little, if at all. However, if we do grant this purpose, what kind of predictions can we make?

Given the present state of our knowledge, we can say practically nothing about the future. Because technology has become more complex "in the long run," and taking culture as a whole, we can conclude that at some *undetermined* future date, at some *unknown* place on earth, technology will become *somewhat* more complex than it is now. For all we know we might be faced with another three thousand year Mesolithic before the process is consummated. And, most important, this rather uninformative prediction is not likely to be improved upon so long as we continue to work in "long runs" and to study the "progress" of culture as one unit. Such a prediction could have been made in Thomsen's times or before. The only difference is that the prediction must be made with less precision now; for at that time prehistorians did not have the Mesolithic or other irregularities to disturb their notion of progressive development. So it seems that the precision of the evolutionary prehistorian's predictions is likely to be inversely proportional to the magnitude of his accumulated data—hardly a very "progressive" state of affairs.

We must repeat that Childe does not say that an elucidation of progressive trends is the only goal for archaeology and history. There can be no doubt that the statement of technological progress leads him to ask a further question. It leads him to inquire into the conditions under which technological advances have taken place. The Three-Age scheme serves as a heuristic device. In this context the discussion of progress in culture as a whole is more legitimate and more useful.

Childe attempts to solve the problem with a Marxian analysis. He contends

16 This is Leslie White's position (*The Science of Culture*, pp. 330-359). Childe explicitly denies that this can be done (*History*, pp. 82-83).

that each stage in the history of mankind is marked off by a revolution.[17] And "contradictions," he implies, are necessary antecedents of revolutions.

> At a certain stage in their development the productive forces of a society come into contradiction with . . . the property relations within which they have worked before. . . . In such circumstances, to allow of further technical progress, . . . Marx and Engels held, a revolution was necessary . . . in the sense of desirable or essential for further progress.[18]

In interpreting the data of history according to the Marxian formula, Childe frequently employs a rather common belief involving population and economic surplus. Behind the "contradictions" constructed by the author, one always finds the notion that population will increase and continue increasing until limited by the subsistence economy or other external factors. Thus, the Palaeolithic contradiction involved a limitation on the size of the population imposed by the economy. Too much wealth was devoted to supporting the magicians and too little to the subsistence economy.[19] The Neolithic contradiction entailed in part an increase in population. Geographical expansion became necessary and war was the inevitable outcome.[20] The contradiction in the Bronze Age economy is seen as the outcome of a concentration of wealth in the hands of a few men. The population increased to a size greater than could be supported by the subsistence economy and again geographical expansion and war resulted.[21] These propositions are apparently intended to explain the destruction of "high civilizations."

In proposing these "explanations" Childe has recourse to rather tenuous estimates of fluctuations in the populations of prehistoric times. Actually we know very little about the magnitude of prehistoric populations and at present have few, if any, accurate methods for making appraisals. Childe's method seems to be, at times, to infer population size from social and economic conditions, e.g., the existence of cities.[22] Such inferences lend little credibility to explanations of the destruction of these same social and economic conditions in terms of population fluctuation.

However, even if we ignore the absence of good evidence for the computation of populations, we still have a questionable assumption bound up in Childe's efforts

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17 Childe, *What Happened in History*, p. 17.

18 Childe, *History*, pp. 72-73.

19 Childe, *What Happened in History*, pp. 37-38.

20 *Idem*, p. 59.

21 *Idem*, p. 177.

22 Vere Gordon Childe, "A Prehistorian's Interpretation of Diffusion" (in *Independence, Convergence and Borrowing in Institutions, Thought and Art*, Harvard Tercentenary Publications, Cambridge, Mass.: Harvard University Press, 1937), pp. 15-16.

at explanation. What concrete evidence would lead us to believe that populations do in fact continually press the limits of their available provisions? It is quite likely that such conditions have prevailed in many areas at many times. But the nature of the relationship between demographic factors and cultural ones, including technics, is not too clear. Before this relationship can be used in an explanatory proposition it must be clarified and confirmed.

Not only is the attempted explanation of the "decline and fall" of "high civilizations" open to doubt, but we find that Childe fails to come to grips with their ascension. He asserts that each age of prehistory was enabled to appear by virtue of an antecedent revolution; and these in turn occur when men are faced with economic and social contradictions. But he does not in fact explain revolutions. He seems to assume some relationship between the hypothetical contradictions and the succeeding revolutions. He nowhere actually attempts to establish such relationship. Contradictions, indeed, often have a different locale from associated revolutions. For example, the Bronze Age contradiction occurred in Egypt and Mesopotamia primarily,[23] while the revolution which supposedly ushered in the Iron Age started in Greece, Phoenicia, and Etruria.[24] In order to comply with Childe's theory, the alleged contradiction in the organization of Egyptian society would have had to induce a revolution in Greece.

In reality, Childe never does explain the appearance of the stages of technology. He only states that revolutions are essential in order to "allow of further technical progress."[25] But this is the very point: why does technical progress occur? Is it due to an assumed "instinct" for progress? Is there an instinct impelling men to reorganize their society when faced by a contradiction in their socio-economic organization, thus permitting a more "progressive" system to prevail? Of course, the author would not openly espouse such an absurdity.

He does argue that major inventions in the history of technology appear in a necessary order.

> Progress is an individual whole in which the invention of a new way of hafting an ax formed a necessary prelude to the invention of the steam-engine or the aeroplane. In the first innovations the germs of all subsequent improvement were latent. . . .[26]

He claims that the "sequence of historical events" involved in the progression from the Palaeolithic to our contemporary culture " . . . not only did but also

23 Childe, *What Happened in History*, Chapter 8, pp. 184-185.

24 *Idem*, Chapter 9.

25 For complete quotation, see p. 206 of this paper.

26 Vere Gordon Childe, *The Dawn of European Civilization* (4th ed., New York: Alfred A. Knopf, 1948), p. xv.

must, succeed one another in just this order." "Each invention is determined and conditioned by preceding events. The sequence is necessary and its necessity is intelligible."[27]

First we should note that the necessity of the order of stages is a matter of dispute. Each step may not always be a necessary precondition for the following one. Kroeber has argued convincingly that the invention of bronze casting before iron casting was not unavoidable; rather it seems to have been an accident of history.[28]

But even if we agree that the order of the inventions was necessary, one should not think that this gives an explanation for technological advance. (Childe is not explicit as to whether he believes this.) For, a necessary sequence can give us only necessary antecedents for inventions; we do not thereby ascertain the sufficient conditions for their occurrence. We can only conclude that the causes of technological advance have not yet been revealed.[29]

Childe is not interested in explaining only technical progress. He also wishes to enhance our understanding of some characteristics of the non-material aspects of culture. Having discovered, to his satisfaction, the processes involved in the progressive development of technology and the necessary order of change therein, he goes on to uphold the primacy of technology in history. It is, he says, the "foundation of history," because "the possibility of historical change depends on . . . the means of production."[30] "All . . . so called spiritual results of man's historical activity are *in the long run* determined by the material forces of production."[31] The relations of production, Childe concedes, must be transformed into ideas and ideals—and when thus transformed they "acquire a certain independent historical reality." Sentiment may thus impede "progress," and "the relation of ideology to the productive forces may be rather remote." But Childe insists throughout that changes in ideology are ultimately based on technology.[32]

27 Childe, *History*, p. 10.

28 A. L. Kroeber, *Anthropology* (New York: Harcourt, Brace, 1948), pp. 726-728.

29 There is one further type of explanation of technical inventions which *may* be involved in some of Childe's assumptions. It is in some respects similar to the explanation of the destruction of "high civilizations" by reference to population expansion which we discussed on pages 206-207 of this paper. In this instance, the continuous pressure of population growth on economic resources is supposed to create a need for economic innovations. This need, in turn, impels the invention of technical devices. Such typically functional explanations of inventions have been fairly popular in anthropology. One of the best refutations was put forward, ironically enough, by the arch-functionalist, Durkheim (Emile Durkheim, *The Rules of Sociological Method*, G. E. G. Catlin, ed., S. H. Solovay and J. H. Mueller, translators, 8th ed., Glencoe: Free Press, 1938; reprinted 1950), pp. 90-92.

30 Childe, *History*, pp. 69-70.

31 *Idem*, pp. 71-72: emphasis mine.

32 *Idem*, pp. 75-76.

The hierarchical arrangements of cultures constructed by the nineteenth century anthropologists were often based on an implicit assumption of economic or technological determinism. Childe has performed for us the service of openly arguing for the conception. But he offers little evidence or convincing argument in its behalf. He appears to base his belief on the fact that "to be able to act at all men must live," and "the 'means of production' at the disposal of society . . . constitute the equipment that enables human beings to procure [all the things] necessary for life and the reproduction and multiplication of our species."[33]

His contention seems to be that technology is the most significant casual element in society because it is absolutely necessary if men are to live. But, it has never been demonstrated that the greatest necessities in life are the most efficacious factors inducing cultural change or stability. Further, we may assume this, and still once a necessity is complied with, there is no reason to assume that it will dominate man's social life. What a sociologist has had to say about economic determinism is pertinent here:

> Certainly we are justified in assuming . . . that *some* degree of economic surplus is necessary for any kind of achievement in culture. But, once this minimum condition is met we are likely to find that different ranks of circumstances—moral, social, psychological—tend to become crucial and that these may exist, variably, in settings of relative economic misery or prosperity.[34]

Even if there were a society living on a sub-human subsistence level, the proposition would not be relevant. Sexual reproduction, at least, is another prerequisite for societal survival; and one could make a case for sexual determinism on this logic as easily as for technological determinism.

Childe's *a priori* argument for economic determinism is not convincing. Further, we contend that the position is one that cannot be validated, even where empirical documentation is used, if definition is imprecise and methodology lacks rigor. The ordinary narrative methods of historical and prehistorical synthesis will not suffice. For example, Childe and other Marxians often state that the technology or the economy is the determinant *in the long run*[35]—and the long run can be made just as long as is necessary to "prove" the proposition. Each change in any of the aspects of a culture is always preceded by changes in other aspects which have occurred at *some* time in the culture's history. The aspect which the student

33 *Idem*, p. 70.

34 Robert A. Nisbet, Review of *The Rise and Fall of Civilization: an Inquiry into the Relationship between Economic Development and Civilization* by Shepard B. Clough (American Journal of Sociology, vol. 57, pp. 524-526, 1952), p. 526.

35 See page 208 of this paper.

believes to be causal can, therefore, always be "confirmed" as causal by simply examining a larger portion of the historical record. One can go as far back in time as one likes to show that the chosen behavior is *ultimately* primary. Such methods neither prove nor disprove. They are the ritual incantations of cultists. Their outcome can not be scientific laws, but faiths.

Though Childe's Marxian explanation of the stages of prehistory does not measure up to scientific standards, this does not mean that the question must remain moot. Further inquiry into geographic, demographic, economic, and other factors may eventually give a solution. The problem is meaningful and significant. But we must understand that it is but one problem for scientific history. Emphasis on it to the exclusion of other historical research will narrow the scope of historical inquiry excessively. Each time any culture of the world takes a step beyond the technological level achieved by any culture up until then, it is recorded as progress for culture as a whole. Meanwhile, in the history of this unit innumerable changes may have taken place. Some particular cultures can change radically as respects their cosmologies. Some may have violent changes in art style. Other societies may rearrange their kinship systems, alter child-rearing practices, adopt new religions, accept different foods, alter funerary customs, change their patterns of sex relations; or, in fact, they may accept a basically new economy, political system, or social organization. But if none of these changes is the sort which Childe defines as "progressive" they are not included as data for his theory. The scope of historical inquiry is thus greatly restricted. Research cannot be so restricted if we are to achieve an understanding of the past in its relation to the present conditions of life.

A crucial ambiguity in the theory of progress involves the nature of the unit of observation to which the abstract "law of progress" allegedly refers. We have just reviewed Childe's case for the idea of progress conceived as pertaining to the whole of culture. In different parts of his writings he refers not to Culture, but to the histories of particular cultures or regions. When he takes this position he of course accepts cultures as isolable.

> Mankind does not form one society today but is divided into many distinct societies; all the available evidence suggests that the division was not less but even greater in the past as far as archaeology can penetrate. Each society . . . has preserved, transmitted and built up its own peculiar traditions.[36]

The system of progressive ages is now intended to refer to many distinct histories. On the basis of material remains archaeologists have built up a classification of cul-

36 Childe, *What Happened in History*, p. 12.

tures in technological stages that do follow one another in the same order in quite a number of regions; they are everywhere homotaxial but not necessarily contemporary.[37]

The concept of homotaxis, borrowed from biology, is meant to indicate that the sequences are the same "all over the globe"; but "it did not follow that they must everywhere occupy the same positions if aligned according to the series of solar years."[38]

Such statements as these are not quite clear; one could possibly construe them as a type of unilinear evolutionism not much different from that practiced by the theorists of the preceding century. Certainly Childe has nowhere explicitly distinguished this position from the earlier theorists' beliefs. And yet, when we keep in mind that Childe is intimately acquainted with the data of prehistory, it seems inconceivable that he should believe that any of the suggested sequences are actually ubiquitous and invariable. His position only becomes clear when we consider further statements.

The key to the difficulty lies in his interpretation of the concept of homotaxis. In *Social Evolution* he says that ages are everywhere homotaxial in that "each . . . always occupies the same relative position in the sequence *wherever the full sequence is available.* (In New Zealand, for example, the sequence is incomplete, since the Bronze Age is missing.)"[39]

In this light we can see that the derivation of the Three-Age or any other classification from a comparison of many cultural histories is not meant in the same sense as that intended by the early unilinear evolutionists. The Three-Age sequence may be confirmed without our having to observe the passage of each and every "civilized" culture through all three ages—because "incomplete sequences" are excepted. One may phrase the argument as follows: that whenever *both* the Bronze and Iron Ages obtained in the history of a culture, then the Bronze Age always preceded the Iron Age. Similarly with all of the categories: whenever any two, or all three, of the stages in the Stone-Bronze-Iron hierarchy have obtained in the history of a culture, then the lower stage always precedes the higher one. Thus only when substantially modified can we say that the sequence is a valid historical generalization. If we are to avoid ambiguity and unnecessary dissidence, we must be careful clearly to differentiate such generalizations from those proposed by the nineteenth century systematizers.

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37 Childe, *Archaeology and Anthropology*, p. 249.

38 Childe, *Archaeological Ages as Technological Stages*, p. 1.

39 Vere Gordon Childe, *Social Evolution* (London: Watts, 1951), p. 20: emphasis mine. For a similar statement see page 29, same book.

There is one point in his theoretical work where Childe turns to inductive empiricism; he actually compares cultural histories. Here the approach is that of multilinear evolutionism. He does not deal with the alleged order of the major stages of culture growth. Rather, he examines information available on culture change *within* stages or, if you will, types of cultures and attempts to discern regularities. He first summarizes "in a very abstract way successive steps through which barbarian cultures actually passed on the road to civilization in contrasted environments."[40] The sequences are compared, and he finds that the start and finish of each display some similarities; e.g., the same species of cereals were used at the start, and an effective concentration of economic and political power obtained in the final result. "But the intervening steps in development do not exhibit even abstract parallelism. . . . They cannot therefore be used to define stages common to all sequences examined."[41] However, they do display what Childe calls the processes of divergence and convergence. Divergence is explained as adaptations of one type of rural economy to different natural environments. Convergence is explained by the facts of diffusion.[42] It involves the addition of similar traits to different societies and the integration of the traits into the respective societies. Thus, the societies become more alike without losing their distinctive individualities.[43]

When the author does not attempt to defend a thesis, and instead empirically attempts to derive a hypothesis, his conclusions are much more in keeping with the data to which they pertain. Here we have revealed no sequences, no regularities in the accumulation of traits, but rather repetitive *processes* of history.

However, there are some deficiences. For one, his interpretation of divergence requires modification. Childe contends that the process is due to variation in habitat, a surprising oversimplification for one so well versed in archaeological fact. Some differences between cultures which display over-all similarities can be understood by examining variation in natural environment; but certainly the entire process of divergence in art style, religion, social organization, etc. cannot be so understood. It is probable that some aspects of divergence are due to diffusion from different sources. And further, we may state with confidence that there will remain

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40 *Idem*, Chapters VI-XI. For one area Childe does not have an actual sequence. The cultures were more or less contemporary, but are arranged in a series in accordance with their complexity. See pages 119-120 for this unfortunate methodological lapse in an otherwise acceptable study.

41 *Idem*, pp. 161, 162.

42 *Idem*, pp. 161-163, 173.

43 *Idem*, pp. 166-167.

a residue of differences after diffusion and the environmental factor have accounted for their share of cultural differentiation; this too will require explanation.

A further defect of Childe's generalizations is their vagueness. Greater specificity would be much more enlightening. For example: Can the two processes be distinguished in terms of the types of cultural milieux in which they take place? Are there differences in and between the rates of convergence and divergence under different conditions? These questions, if answered, will help to place historical anthropology on firm theoretical foundations.

Our examination of Vere Gordon Childe's evolutionism has yielded both positive and negative results. The Thomsen categories, the Morgan scheme, and the more common archaeological classification can be applied to the past without qualification only if the histories of all cultures are considered as a single unit. In this case, the classificatory system acts as a guide for investigators. It sets up a specific problem for solution: "Under what conditions did the particular stages in question come to be"? Though Childe's dialectical materialist approach is unsatisfactory, the problem is an important one which requires further research and analysis. Thus, the present practice of classifying culture as a whole into ages or stages is valuable heuristically and should be maintained.

None of the systems is valid, however, if they are intended as summaries of all or most of the histories of the world's cultures. For in this case, the histories do not conform to the classificatory schemes. The Three-Age system can be construed as a historical generalization only when substantially modified, only when "incomplete sequences" are excluded. But neither this nor the other sequential classifications are tenable as statements of invariant sequence—or for that matter, as universal generalizations to which only a few exceptions can be attributed.

Childe's comparison of culture histories within the "Barbarian" stage is another matter. The elucidation of such processes as these is one of the major goals of historical anthropology.

There is one overall objection to Childe's work; the information upon which he relies in theory construction is unfortunately restricted as to area. He tends to slight historical sequences in the Far East and almost totally ignores the facts of New World cultural developments. Whatever the evolutionary framework—universal, unilinear, or multilinear—these data are pertinent, particularly so in the case of the Americas which give us presumably independent instances of historical sequences.

In spite of their faults, Childe's evolutionary theories can be said to contain valuable insights and useful hypotheses. But we must keep in mind that there are

other problems to be solved and other approaches to employ in the scientific study of history. The work of Crawford and Fox on ecological factors in culture history is illustrative. The methodological suggestions of Taylor appear valuable in many respects. Hodgen's studies of diffusion are excellent historical anthropology. Kroeber and Richardson's work on fashion change and the acculturation studies of the ethnohistorians, Herskovits for instance, are other examples of promising methods. These methods, involving rigorous inductive work in the historic and prehistoric records, should be pursued alongside the more intensive short-range studies by the social anthropologists. It is by these means that we will achieve an adequate general theory of culture change.

Berkeley, California

A LATE COMPLEX IN SOUTHERN CALIFORNIA PREHISTORY[1]

CLEMENT W. MEIGHAN

IT HAS LONG BEEN SURMISED by anthropologists that the recent Indians of southern California, both historically and archaeologically, were influenced to a great extent by cultural elements originating in the more complex groups of the Southwest. Archaeologically, connections have been postulated on the basis of such traits as three-quarter grooved axes,[2] pictograph elements,[3] and several pottery characteristics.[4] Ethnographically, similarities between southern California and areas to the east are seen in the presence of sand paintings,[5] paddle-and-anvil pottery,[6] and curved throwing sticks.[7] Whether the observed similarities are due to a sharing of a common cultural tradition or to more recent influences emanating from the vigorous Southwestern cultures is a question which can only be answered when adequate information on the archaeology of southern California is at hand. The purpose of the present report is the definition of a late archaeological horizon, as seen from investigation of a protohistoric site in northern San Diego County a few miles from the Pacific coast. The procedure followed is to define briefly the archaeological complex, then to analyze this in terms of existing ideas on the exterior relationships of southern Californians.

1 The excavation here described was carried out in June 1953. Specimens are stored in the archaeology laboratory at the University of California, Los Angeles. I am indebted to the following students for their assistance in the field: M. Hedden, J. C. Hurst, M. Kowta, R. J. Smith, B. K. Swartz, and E. V. Winans. The site was called to our attention by D. L. True and excavation was kindly permitted by W. R. Allers, owner of the property. Mildred Wissler of the University assisted in the laboratory work of describing the specimens, and Dr Bayard Brattstrom identified the shell specimens. The work was partially supported by a Faculty Research Grant from the University of California.

This paper is the third in a series of independent but related projects now being undertaken in former Luiseño territory by faculty and students of the Department of Anthropology and Sociology, University of California at Los Angeles. Field training in ethnography was instituted in this region by Dr W. A. Lessa in 1951. Archaeological work, under the writer, has been more limited but is continuing with the assistance of several students. The other papers reporting on recent research in the region include the following: Raymond C. White, *Two Surviving Luiseño Ceremonies* (American Anthropologist, vol. 55, pp. 569-578, 1953); Delbert L. True, *Petroglyphs of the San Luis Rey River Basin* (in press).

2 Heizer, 1946, p. 190.

3 Lathrap, 1950, p. 22.

4 Treganza, 1942.

5 Cf. Dubois, 1908, pp. 87-90; Kroeber, 1925, p. 661.

6 Gifford, 1928.

7 Heizer, *loc. cit.*

It seems certain that many distinctive local complexes remain to be described in southern California. A larger and more general pattern for the area has been outlined by Rogers[8] in his ambitious attempt to block out the major happenings in Yuman prehistory. Confirmation or rejection of Roger's scheme now awaits detailed reporting of individual sites. Such reporting has been remarkably scarce, partly because of the difficulties inherent in the nature of southern California sites. Although archaeological remains in San Diego County are abundant, the prevailing southern California pattern of thin but extensive "surface sites" is much in evidence. As a result, few sites have been recorded which have any real depth of midden debris. The site reported here had a maximum depth of 36 inches of black, sandy midden, although no artifacts were found deeper than 30 inches and nearly all of them were in the top 24 inches of deposit. No cultural change could be observed in the site and it may be presumed to represent a relatively short period of occupation.

The midden (site SD-132 in records at the University of California, Los Angeles) is located on a rocky ridge above Frey Creek just west of Pala in San Diego County. Historically, this area was occupied by the Luiseño and there is every reason to believe that the site itself represents a prehistoric village occupied by ancestors of the modern Luiseño. The village was abandoned in pre-contact times and living Luiseño informants have no memory of it.

The excavation sample was dug in six inch levels and passed through a quarter-inch screen. A total of fifty cubic yards of midden was examined—a relatively small site sample but one which included a large portion of the site which was itself a very small village (see Map, Fig. 1). From this sample, 160 artifacts were recovered.

Types and numbers of the artifacts may be seen in the accompanying table and illustrations. Additional comment on the specimens follows.

Grinding implements: An unusual variety of grinding implements was used at SD-132. Portable metates and bedrock mortars appear to have been most common, although bedrock mortars and (rarely) portable mortars were also used. Pestles for the bedrock mortars were large, unshaped granite cobbles. The abundance of grinding implements suggests that vegetable foods were of major importance in the diet.

Projectile points: 61 projectile points of 8 types were recovered. The favored material was white quartzite, although a black flint was also used for projectile points. Points are small, averaging a shade under an inch in length (2.3 cm). Triangular, concave-based points are most common; this type occurs commonly

8 Rogers, 1945.

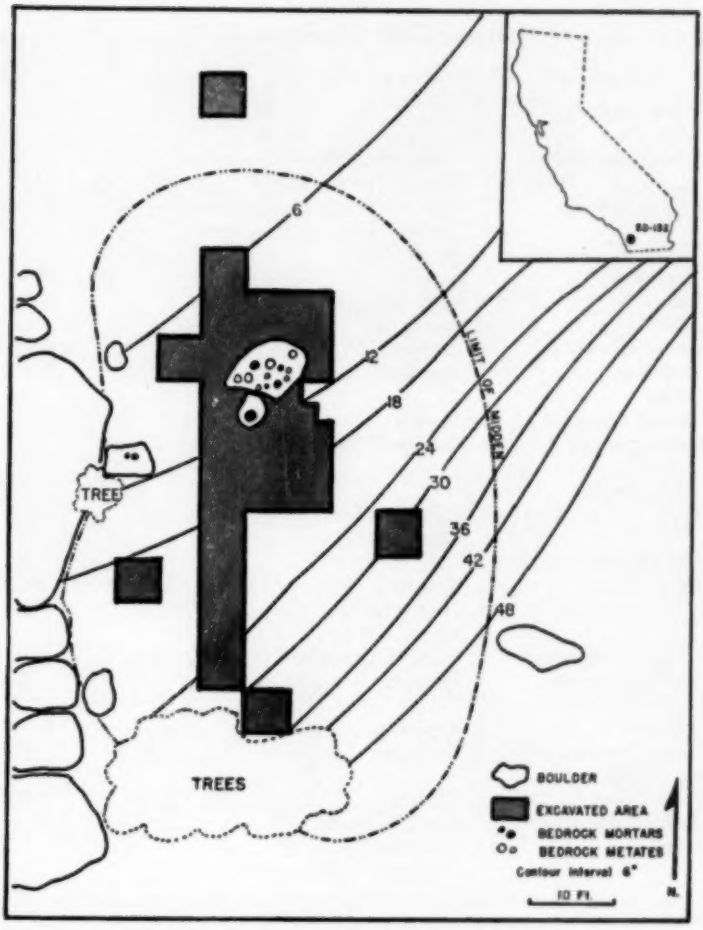
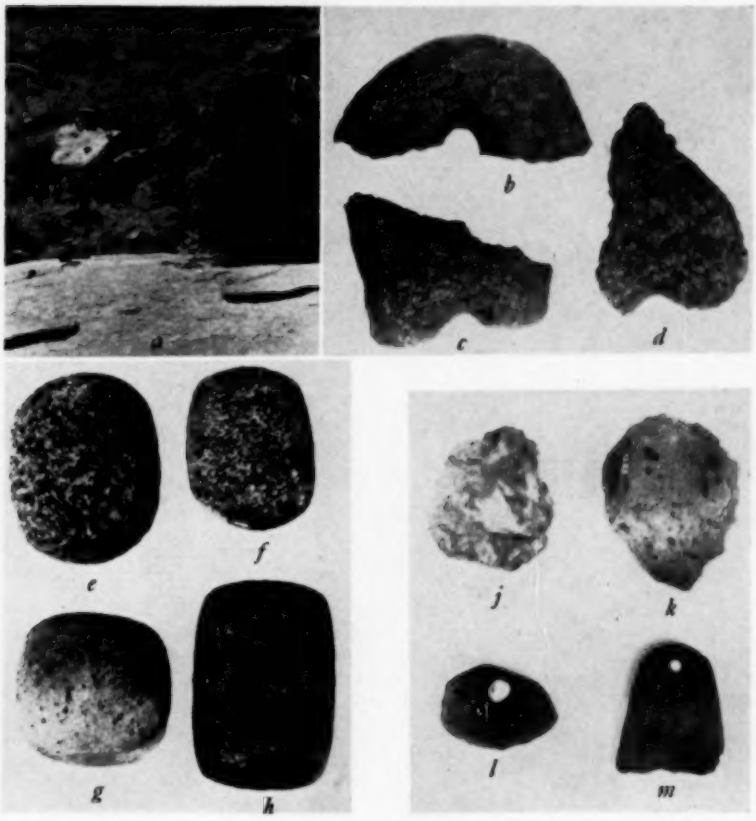


Fig. 1. Map of Site SD-132: Pala, San Diego County, California.

TABLE 1

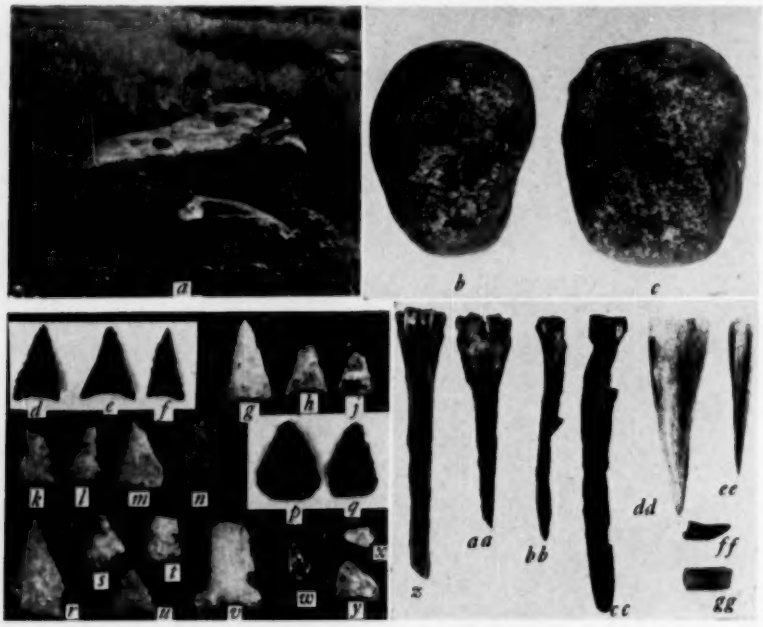
Descriptive Table of Specimens, SD-132

Artifact Type	*Total*	*Material*	*Average Size*	*Illustration*
Grinding implements				
Manos				
Type 1, monofacial	11	Sandstone (2) Basalt (1) Granite (7) Schist (1)	ca. 8-12 cm dia.	Pl. 1, e, f
Type 2, bifacial	17	Granite (14) Schist (1) Basalt (1) Quartzite (1)	8.3 cm length	Pl. 1, g, h
Type 3, all surfaces worked	2	Granite	9.4 cm	
Metates	6	Granite (5) Schist (1)	28 cm	
Pestles				
Unshaped cobbles	4	Granite	15.4 cm	Pl. 2, b, c
Shaped cylinders	1	Granite		
Mortars				
Exterior unworked	1	Granite		
Exterior shaped	3	Granite (2) Basalt (1)	height ca. 13.5 cm	
Projectile points				
Type 1, concave base	21	Basalt (4) Chert (5) Quartzite (12)	2.3 cm lgth.	Pl. 2, d-j
Type 1A, concave base sides notched	2	Quartzite	1.9 cm lgth.	Pl. 2, k-l
Type 2, triangular	15	Basalt (3) Chert (4) Quartzite (8)	2.2 cm lgth.	Pl. 2, m, n
Type 2A, leaf-shaped	3	Chert (2) Quartzite (1)	2.6 cm lgth.	Pl. 2, p, q
Type 3, square stem	1	Quartzite	3.3 cm lgth.	Pl. 2, r
Type 3A, rudimentary stem	2	Quartzite	ca.2.0 lgth.	Pl. 2, s, t
Type 4, "swallowtail"	1	Quartzite	1.6 cm lgth.	Pl. 2, u
Type 5, side notched concave base	1	Quartzite	ca.6.0 lgth.	Pl. 2, v
Unclassifiable fragments	15	Chert (5) Basalt (1) Quartzite (9)		
Miscellaneous stone objects				
Scrapers	10	Tuff (4) Chert (5) Basalt (1)	4.3 cm dia.	Pl. 1, j, k
Hammerstones	2	Chert (1) Basalt (1)	6.5 cm dia.	
Drills	2	Quartzite	2.6 cm	



SITE VIEW AND STONE ARTIFACTS, SD-132

a, Site area from west showing mortars and metates; *b-d*, Perforated stone objects (length of *c*, 11.8 cm); *e-h*, Manos (length of *f*, 8.3 cm); *j-m*, Scrapers and stone pendants (length of *m*, 3.2 cm).



SITE VIEW AND STONE AND BONE ARTIFACTS

a, Site view; *b-c*, pestles (length of *b*, 17.0 cm); *d-y*, Projectile points (length of *r*, 3.3 cm); *z-gg*, Bone and antler tools (length of *dd*, 11.4 cm).

TABLE 1 (CONT'D)

Descriptive Table of Specimens, SD-132

Artifact Type	*Total*	*Material*	*Average Size*	*Illustration*
Perforated stone objects	3	Schist	9.2 cm	Pl. 1, b-d
Stone pipe or bead fragments	1	Steatite	1.3 cm	
Stone pendants	2	Schist	3.0 cm	Pl. 1, l, m
Quartz crystals	4	Quartz	2.1 cm.	Pl. 2, w, x, y
Bone and antler objects				
Chipped cannon bones	4		12.6 cm	Pl. 2, z, aa, bb
Awls	2	Bone	5.6 cm	Pl. 2, ee
Flakers	4	Bone (3) Antler (1)	5.0 cm	Pl. 2, ff
Triangular bone obj.	1		11.4 cm	Pl. 2, dd
Worked long bone	1		16.9 cm	Pl. 2, cc
Gaming piece (?)	1	Bone	2.7 cm	Pl. 2, gg
Pottery sherd	1		2.9 cm	
Shell beads				
Olivella discs	7		0.8 cm dia.	
Spire-lopped *Olivella*	2		1.4 cm lgth.	
Limpet ring (*Megathura crenulata*)	1		1.1 cm dia.	
Donax gouldii shell punched perforation	1		1.7 cm lg.	
Unmodified faunal remains				

Shells: *Cerithidia californicus* (4), *Pecten circularis* (19), *Haliotis rufescens* (6), *Donax gouldii* (5). Unidentified shell—41. Total—75.

Animal bone: Total count—1287 fragments. Bone specimens are all broken into small fragments, nearly all of them being less than an inch in maximum dimension. Identification of species is impossible for the bulk of the material. Six fragments are bird bone; the remainder appear to be primarily from rabbits and deer. Most of the pieces are burned, and this fact plus the extreme fragmentation of the bones suggests that game animals were utilized with a minimum of wastage.

in late period and historic sites in San Diego County.[9] Projectile points of a known Luiseño village occupied in historic times (SD-122, *Taghanashpa*) include 4 of the 8 types found at SD-132 (1, 1A, 2, 3A) and are of almost identical size (range 1.5 to 2.6 cm; average 2.0 cm).[10]

9 Cf. McCown, n.d.; McCown, 1945; Harrington, 1933.

10 D. L. True, personal communication.

Shell beads: Shell beads found at SD-132 are of common types which cannot be surely dated. The single exception is a ring of limpet shell, a form which appears to be generally late in coastal sites.

Miscellaneous: The perforated stone objects shown in Plate 1, b-d do not appear to have been described previously. They are crude and of a rather soft stone; their function is unknown but they may be shaft wrenches.

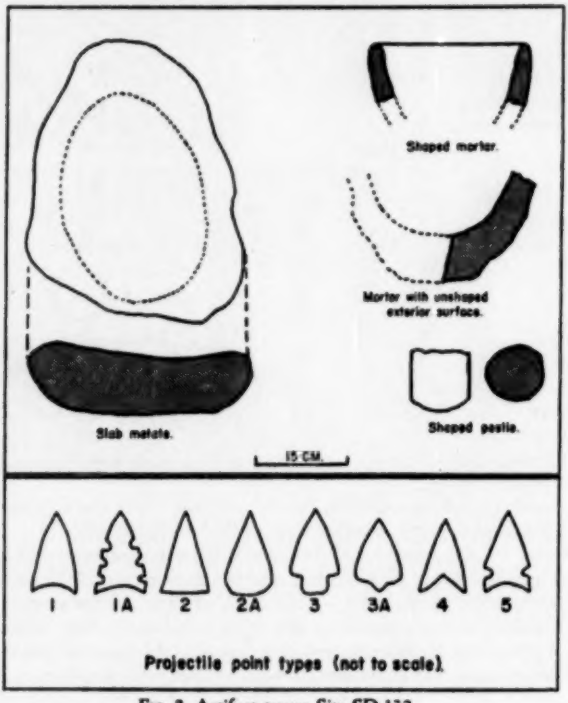


Fig. 2. Artifact types: Site SD-132.

Pottery: A single sherd was found in a test pit dug off the limits of the midden proper. It was found in what appeared to be redeposited sand and is almost certainly an intrusion from a known pottery site about one hundred yards up the ridge. The midden itself is definitely pre-pottery in age, and this is a fact of considerable importance in view of the very late dating which must be assigned to the site.

The dating of SD-132 cannot be determined with real precision, but all indications are that the site is extremely late in time, in all probability dating from immediately before the Spanish mission period. It is not impossible that the site was actually occupied by Luiseño until late in the eighteenth century. The following lines of evidence unite in indicating a recent dating for the site:

1. The midden is black, sooty, and dusty, showing no alteration which might be attributed to age.

2. Virtually every one of the artifact types occurs in the same size and material in nearby sites of known late date. At the Fallbrook Site, a few miles west of Pala, McCown duplicated much of the SD-132 collection, finding my point types 1, 2, 4, and 5, spire-lopped *Olivella* beads, granite cobble pestles, bone awl, and antler flaker. However, the Fallbrook Site also included a pottery pipe and some 250 vessel sherds.[11]

A similar site in the San Vicente lake bed yielded my point types 1, 2, and probably 5, spire-lopped and disc *Olivella* beads, antler flakers, and basin metates. This site also had pottery and cremations in urns. On the basis of half a trough metate, the site is dated prior to 1450 AD.[12] This dating seems somewhat questionable to the writer; the thought occurs that the trough metate could be of Mexican and historic origin.

Artifacts of the SD-132 types also occur in a number of historic sites. A historic Diegueño cemetery at Vallecito yielded my point types 4 and 5 and *Olivella* beads (spire-lopped and probably discs) in association with cremations in pots.[13] Historic projectile points from San Fernando Mission area include two made of glass which correspond to my type 1.[14] Finally, the similarity between objects from SD-132 and the nearby historic site of SD-122 (*Taghanashpa*) has already been mentioned.

Perhaps the chief importance of the SD-132 excavation is the light it throws on the important question of the introduction of pottery into the region. The archaeology strongly supports Roger's original suggestion that "Pottery making among the Luiseño is probably the result of Northern Diegueño acculturation, which occurred at a relatively recent time."[15] The writer would date the arrival of pottery in the area of site SD-132 as not earlier than 1500 AD and would not be too surprised if future investigation places pottery as late as 1600 or 1700 AD for the Luiseño. It should be noted that this region is on the extreme margins of

11 McCown, n.d.
12 McCown, 1945, p. 261.
13 Heye, 1919.
14 Harrington, 1933.
15 Rogers, 1936.

pottery distribution; the late date suggests that the art of pottery making was still spreading in southern California at the time of European entry.

A second conclusion which has not been sufficiently stressed is that the western part of southern California has at least two phases of late occupation—an earlier, pre-pottery phase, and a later phase which extends into the historic period and which consists essentially of the earlier phase plus pottery.

The problem of naming the two complexes remains to be considered. As mentioned below, the "Yuman III" designation of Rogers is not properly applicable to either the pottery or non-pottery phases of this particular part of California. It is suggested that the term *San Luis Rey I* be used to designate the complex described in the present article, and that the sequent period be designated as *San Luis Rey II*. The names are derived from the San Luis Rey River, the basin of which contains many of the sites with these distinctive materials. Chronologically, the two complexes may be considered sub-phases of Rogers' broader Yuman III material. Culturally, however, they are sufficiently distinctive to merit special terms. A summary of existing knowledge on the two manifestations is given in Table 2.

As can be seen from the table, knowledge of the archaeology of the San Luis Rey valley goes back only for the last 500 years or so, since both of the San Luis Rey complexes are quite late in time. Although there is reason to believe that considerably older remains are to be found in this region,[16] so far nothing of any antiquity has been described. Such early sites as exist in the immediate region are likely to have been disturbed by recent geological factors, for arroyo-cutting, mud-flows, and alluviation have all occurred on a wide scale. Certainly nearly all of the known sites can be confidently assigned to one of the San Luis Rey complexes. However, it seems likely that intensive survey of the San Luis Rey basin will turn up older complexes, perhaps similar to the La Jolla or Topanga materials.

Turning now to the place of SD-132 in Southwestern culture history, some comments on exterior cultural relationships may be ventured. As a first step, mention should be made of Rogers' over-all outline of Yuman prehistory.[17] Rogers' specific remarks are concerned with the Colorado River area primarily, and only general comment is devoted to the western area, in which SD-132 falls. Rogers recognized the existence of numerous local cultures which had not been described, and that represented at SD-132 is one of these small sub-cultures. It should be noted that the SD-132 complex can *not* be properly assigned to the culture which

16 Cf. Eberhart, n.d.; Rogers, 1945, pp. 171, 172.
17 Rogers, 1945.

TABLE 2
Outline Definition of San Luis Rey Complexes

	San Luis Rey I	*San Luis Rey II*
Dating	ca. 1400-1750 AD	ca. 1750-1850 AD
Area	Not defined in detail. San Diego County west of Salton Sink.	Not defined in detail. San Diego County west of Salton Sink.
House type	No archaeological information. Probably brush houses, small, circular form.	Historic Diegueño-Luiseño house types.
Grinding implements	Bedrock metates and slab metates. Small oval manos, bifacial and monofacial. Bedrock mortars with cylindrical pestles (rare).	Substantial duplication of the San Luis Rey I material plus the following additional objects: Pottery vessels and tubular pipes. Cremation urns.
Projectile points	Small, usually of quartzite or basalt. Forms variable but most commonly triangular with concave base.	Red and black pictographs. Historical artifacts–glass beads, knives, in terminal sites of this complex. Grooved steatite arrow straighteners.
Ornaments	Stone pendants, some with drilled pit ornamentation. *Olivella* discs and spire-lopped beads. Quartz crystals.	
Bone objects	Deer bone awls, chipped cannon bones, bone and antler flakers.	
Sites of the complex	SD-132	Vallecito (Heye, 1919) San Vicente (McCown, 1945) Fallbrook (McCowan, n.d.) Ramona (Mykrantz, 1927) Pala area (Eberhart, n.d.) including SD-120, SD-121, SD-122, SD-126, SD-127, SD-128.

Rogers designates as Yuman III (the only described complex which SD-132 could possibly belong to according to the temporal and areal information given). Yuman III traits which are not present at SD-132 include pottery, flat and rectangular shaped metates, two-handed manos, wooden mortars, cobble choppers, and circular hearths with clay wall.[18] In fact, about the only traits which correspond between Yuman III and the present sample are bedrock mortars and the presence of beads made from Pacific Coast shells. It is thus apparent that much of the area which Rogers calls the western area still remains to be investigated in detail, and that cultural ties between this region and the "Yuman" area proper are themselves very imperfectly known.

For regions east of the Colorado River, there is no archaeological complex which shows close similarity to the artifact pattern revealed at SD-132. The concave-based points of site SD-132 are found in various parts of the Southwest, including the Sacaton phase at Snaketown[19] but aside from this rather vague similarity there is little to suggest Southwest connections. If the SD-132 material is connected to Southwestern cultures at all, the connection must have been at a very distant time in the past. The Southwestern cultures have had many distinctive and elaborate artifacts since the beginning of the Christian era, and the total lack of such objects in the sites under consideration suggests that only a tenuous cultural connection has existed during the last several hundred years.

The relationships that can be seen in the SD-132 work seem to the writer to lie in the direction of the California coast rather than toward the desert regions and the Colorado River. In other words, the writer sees the SD-132 area as typically Californian in appearance, and no tangible evidence of influences from the east are visible until the very latest periods. SD-132's projectile points appear to correspond closely in type and frequency to the sites of the coastal strip, whereas points from areas to the east and south are more commonly side-notched and concave-based. Virtually every other object from SD-132 can be matched with specimens from coastal sites to the north and west. Very few of these objects are known from desert sites to the east, although the absence may admittedly be due to the lesser amount of investigation in most of the desert. SD-132 also contains a fair number of unmodified marine shells in the midden deposit—clear evidence of travel back and forth to the coast.

We may now return to a discussion of the cultural similarities with the Southwest mentioned at the beginning of this article. The San Luis Rey I complex clearly shows that some of the Southwestern elements are very recent in western

18 *Op. cit.*, Table I.

19 Gladwin et al., 1937, p. 113.

California. Although not conclusive proof, the evidence supports the suggestions of previous writers that the whole assemblage of pottery-making features represents a recent wave of diffusion from the Southwest, and specifically from the Hohokam area. It seems likely that the cremation complex of southern California entered at about the same time, but since no evidence of the mortuary complex was found at SD-132 this hypothesis remains speculation at present. In any case, the San Luis Rey I complex permits us to date the arrival of the diffusion wave bearing pottery at its western border (almost to the Pacific coast) in very late times. Whatever the precise nature of the derivation involved, it seems clear that the influences which had begun in the Southwest were still expanding at the time of European incursion. This point is most dramatically illustrated by actual trade items from the Southwest which had penetrated all the way to the San Joaquin valley of central California in late times.[20]

The protohistoric influences from the Southwest seem reasonably well established on the basis of the works previously cited. There remains to be explained the less tangible cultural features, in particular the tantalizing occurrence of sand-paintings in southern California. It is at this point that the archaeologist is painfully aware of the deficiencies of his data, since it would be a most exceptional circumstance that would permit recovery of transitory sand-paintings from an archaeological context. However, some indirect evidence suggests that sand-paintings have been in California for a longer time than the later "pottery wave." Ethnographic accounts show the sand-paintings to be a deep-seated part of Luiseño religion. In addition, there is the gap in distribution, sand-paintings being absent among some intermediate groups. It seems unlikely that these conditions would exist if sand-paintings had arrived as recently among the Luiseño as the art of pottery making.

No doubt the cultural relationships between the aboriginal peoples of southern California and those of regions to the east extended over a long period of time. These relationships were certainly of a very complex sort, with influences flowing now one direction and now the other. The terminal influence which emanated from the Southwest has given the impression that the southern California peoples were always in the position of recipients in the acculturative process. However, if enough was known of the early California cultures it might be found that many elements considered to be basic Southwestern traits actually saw their origin in the California cultures. Sand-paintings are a case in point. It has been suggested by Kroeber that this cultural development is part of a shared tradition of consid-

20 Cf. particularly the cotton blanket described in Kroeber, 1951, pp. 9-10.

erable antiquity,[21] and the possibility that this art was invented outside of the central area of Southwestern cultures is worth some consideration.

Unfortunately, the state of our knowledge of early cultures in southern California is so fragmentary that not more than a glimmer of light can be cast on the wider problems of cultural relationships. Despite the pioneering reports of Rogers and others, we really know almost nothing of what was happening in southern California at the time the Pueblo I culture was active in the Anasazi area (or even Pueblo III, for that matter). Although marine shells from the Pacific Coast were reaching the Anasazi area in Basketmaker times[22] and the Hohokam area as early as 1000 AD,[23] we have only the barest outline knowledge of the peoples who lived along the California portions of those early trade routes. There are, of course, some very real difficulties in extracting this knowledge from the sort of archaeological sites in southern California. But while there is no Snaketown in California, there are thousands of small and shallow sites which can yield the same sort of cultural information from the piecing together of many brief site reports such as this one.

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SIRIONO AND PENAN: A TEST OF SOME HYPOTHESES

RODNEY NEEDHAM

HOLMBERG in his study of the Siriono[1] advances certain generalizations "for further refinement and investigation in other societies where conditions of food insecurity and hunger frustration are comparable to those found among the Siriono" (pp.98-99). He makes these with some reserve because of lack of library facilities and other reasons at the time of writing (p. 92, fn. 7).

I wish to make an elementary test of these generalizations by comparison of the Siriono with the forest nomad Penan of the interior of northwestern Borneo. The Penan differ considerably from the Siriono in matters such as kinship organization, but they are comparable in that the defining character of the societies to which the generalizations are thought to apply is an insecure food supply. In this feature also the Penan differ from the Siriono, for the latter plant small crops of maize, manioc, and other plants (p. 29), whereas the nomadic Penan plant no crops and rely entirely on their search for game and the wild sago palm. But Penan life is certainly characterized by food insecurity and hunger, in spite of a different economy.

Any comparison such as this is unsatisfactory until I have documented Penan life at least as fully as Holmberg has described the Siriono, and this is clearly out of the question here. However, no interpretation of Penan data would, I think, quite reverse my comment on any of the hypotheses, and it is the general confirmation of them or otherwise that is initially important.

I find myself out of sympathy with Holmberg's posing of problems in terms of primary and secondary drives. This has led to certain difficulties in making useful comments, and is partly the reason that I do not attempt any refinement of the hypotheses.

I quote Holmberg's hypotheses in full and comment on their applicability to the Penan:

(1) "Such societies will be characterized by a general backwardness of culture. A concern with food problems will so dominate the society that other aspects of its culture will be little developed."

1 Allan R. Holmberg, *Nomads of the Long Bow; the Siriono of Eastern Bolivia* (Publications, Institute of Social Anthropology, Smithsonian Institution, no. 10, 1950).

Penan society is characterized by a general backwardness of culture, and a concern with food problems does dominate in Penan life. This generalization conceals another, however, that it is because food problems dominate that the society is culturally backward. Although this is a reasonable view, and has some support from the Siriono and the Penan, I am not prepared to subscribe to it as a generalization about all aspects of culture in all societies covered by the definition.

(2) "The primary drive of hunger will dominate all other basic drives."

Hunger in Penan society certainly seems to dominate other "basic drives" such as "thirst, sex, and pain" (p. 92). In particular, sexual speculation and activity is subordinate to matters concerning food. In individual terms, I suppose this means essentially that a Penan will endure thirst, fatigue, pain, and deprivation of sexual satisfaction rather than starve. This is generally true of human societies. What distinguishes the Penan and the Siriono is that such choices are real and typical issues; and these issues are entailed by the definition of such societies.

(3) "The sex drive will be mobilized principally through the drive of hunger."

By this I understand that sexual aims are attained through the use of food as a lure or reward (p. 64). This is not true of the Penan, who share all food equally, unlike the Siriono (p. 36). In a time of severe scarcity of food a man might give his share to a woman he is courting, but this is not at all characteristic, and it would be a mistake to attribute such behavior merely to sexual aims.

(4) "The food quest will be painful and fatiguing."

The Penan food quest is painful and fatiguing. (This does not seem to me a useful generalization, nor one in any way particularly characteristic of societies like the Penan or Siriono.)

(5) "Secondary drives generally will be little elaborated."

I am unable to deal at all precisely with a theoretical inquiry in terms of secondary drives; but I should agree with Holmberg (p. 96) that it does not seem likely that highly elaborated cultures would emerge under conditions similar to those found among the Siriono. Among the Penan, technology and the arts are very little developed, but there are nevertheless a number of elements of Penan culture, particularly naming institutions and religious concepts, which are of a very high degree of complexity.

(6) "The strongest secondary drives will be those based on the primary drive of hunger."

Hunger plays little or no part in those aspects of Penan culture ("secondary drives") parallel to those of the Siriono outlined on page 96, and little or no understanding of Penan values and other features of their culture is gained by considering them in relation to hunger.

(7) "Appetites for eating will be strong."

Appetites for eating among Penan are strong. (On the basis of our knowledge of man as an animal organism I should consider this generalization entailed by the definition of the type of society to be considered, not one subject to empirical investigation.)

(8) "Anxieties about food will be intense."

Penan often speak of hunger, are conscious of a certain precariousness in their food supply, and remember painfully the times when they suffered from starvation. But I do not think it is true that their anxieties about food are intense. A phrase commonly heard among them is: "If there is no food today there will be food tomorrow," expressing a confidence in the capacity of the environment to support them, and in their own ability to extract their livelihood from it. It is difficult, of course, to define "intense": Holmberg and others might well choose to describe Penan anxieties about food by this word.

(9) "Aggression will be expressed largely in terms of food; if not, such aggression will be so severely punished that it will be almost entirely repressed."

Aggression in Penan society cannot be expressed in terms of food. They do not fight and quarrel about food, do not manifest a strong reluctance to share food, and do not lie about food (p. 96). On the contrary, they are extremely punctilious about sharing equally in all circumstances. Disputes do sometimes arise among the Western Penan about reluctance to share over and above the obligatory egalitarian sharing, or about a failure to return a gift of food; but such behavior is not typical of Penan culture in the way that aggression is typical of Siriono.

Holmberg's line of argument seems to be that food insecurity leads necessarily to aggression, which will either be normal behavior (as among the Siriono) or will be severely repressed. In the case of the Penan I see no reason to accept his initial assumption. Penan are born into a culture lacking these aggressive features, and there are no sure signs that it is only severe disapproval of them which represses the assumed aggressive desires. The "reaction" of Penan culture to food insecurity is not individualistic aggressiveness but scrupulously exact sharing.

(10) "Prestige will be gained and status maintained largely by food-getting activities."

This is not true of Penan. In their hunting and collecting society a good hunter is esteemed—as a hunter—higher than a not so good hunter, and this certainly contributes to his total evaluation by other individuals. But this ability is considered by Penan distinct from other abilities and qualities which are also valued, and does not contribute to his status in respect to them. Also the staple of Penan diet is sago, and a man who returns having seen a sago palm has not exercised any such skill as a hunter who has secured a pig. Finding sago palms is a much more important form of food-getting than hunting, but more prestige attaches to the latter activity.

(11) "Positions of power and authority will be occupied by individuals who are the best providers of food."

There are no positions of power in Penan society. Authority derives from age, experience, and personal qualities. Each group is normally headed by an elder with a recognized status but little formal authority. His position in no way depends on his capability, past or present, as a provider of food; nor does that of any man respected for his experience, judgment, or other qualities. In any case, though individuals are marked by their particular strengths or skills, there is no great variation between Penan as providers of food. Only in the case of a physically handicapped man is there any very great difference; and if such a man may not become the elder of a group this is because of considerations other than his inability as a provider of food.

(12) "Etiquette and ritual with respect to food will either be lacking or it will be elaborated to a pronounced degree."

There is no elaborate etiquette concerning food.

(13) "Fantasies and dreams about food will be common; if not, the subject of food will be so repressed that food will not appear as a symbol in dreams."

I do not know much about Penan dreams, except that in a number of cases men have said they have dreamed about hunting. However, as hunting is typically what a Penan man does, and as he has few major alternative activities, and none so exciting or so different from instance to instance, one would expect it to feature in dreams composed of elements of his waking life. Whether in these circum-

stances the dreams have any of the significance that I understand Holmberg to embody in his generalization I cannot say.

(14) "Magical practices will be devoted principally to increasing and insuring the supply of food."

There are very few magical practices in Penan culture, but there is believed to be the possibility of magically ensuring success in hunting—though not in the finding of sago, the staple food. Prayers are very frequently requests for food.

(15) "The most rewarding behavior in the society will be that which reinforces the hunger drive."

See the comments on generalizations 10 and 11.

(16) "There will be a tendency to kill, abandon, neglect, or otherwise dispose of the aged, the deformed young, and the extremely ill. If not, such dependents will occupy a favored status in the society."

This is completely false of the Penan, in conception and action. The old, deformed, and extremely ill are cared for in every way known to the Penan. The group changes or postpones its movements for their sake, even to the considerable detriment of its members. No suggestion so horrifies the Penan as that they might kill, abandon, neglect, or otherwise dispose of such individuals. On the other hand, these are recognized for the burdens they are on the group, and in no way occupy a favored status.

(17) "Kin groups will be more cohesive than all other social groups and will perform a greater number of significant functions than local or other internal social groups."

By "kin groups" Holmberg means "nuclear and extended families" (p. 97), as distinct from the local group or band. As opposed to the Siriono nuclear family, the Penan family's solidarity does not "spring primarily from a lack of economic security" and the local group does not become relatively unimportant as a social group. Very many features of Penan society, and particularly the mutual support rendered by the component families to each other, make the Penan group important to its members.

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